THE JOURNAL
OF THE
OKLAHOMA STATE MEDICAL ASSOCIATION

VOLUME XXXVI OKLAHOMA CITY, OKLAHOMA, SEPTEMBER, 1943 NUMBER 9

Naval Medicine*

CAPTAIN LESLIE B. MARSHALL, M.S., U.S.N.
Commanding Officer United States Naval Hospital
NORMAN, OKLAHOMA

The title of this paper has been given as "Naval Medicine". This title, to a certain extent, is a misnomer, for it is manifestly impossible to cover all aspects of naval medicine in the allotted time. However, I propose to tell you something of the Medical Department of the Navy, its organization, functions and duties as they apply to the thousands of personnel now serving in all parts of the world.

Perhaps as good a way as any to begin is to give, at the outset, the mission of the Medical Department of the Navy. That mission is, "To keep as many men at as many guns as many days as possible." This you can readily see, is no small job and requires not only the trained medical officers but also the nurses, the hospital corpsmen, the administrative officers and all of the Civil Service Personnel that go to make up the personnel of our corps.

The Department of the Navy was created by an act of Congress April 30, 1798. Our Navy was but a tiny infant in those days but has grown over the years into the huge organization that it now is. The Bureau system of the Navy Department was established by an act of Congress August 31, 1842. This act provided that the business of the Department should be distributed among five bureaus, including a Bureau of Medicine and Surgery. The present laws provide that all duties of the Bureau shall be performed under the authority of the Secretary of the Navy, and that its orders should be considered as emanating from him and shall have full force and effect as such. The Chief of the Bureau is appointed by the President for a period of four years by and with the consent of the Senate and, while so serving, holds the title of Surgeon General of the Navy and the rank of Rear Admiral in the Medical Corps.

The Bureau of Medicine and Surgery is organized as follows:

1. Division of Administration.
2. Division of Personnel (Doctors, Nurses, Hospital Corps, Civil Service Personnel.)
3. Division of Dentistry.
4. Division of Physical Qualifications.
5. Division of Preventive Medicine.
6. Division of Aviation Medicine.
7. Division of Material and Finances.
8. Division of Inspections.
9. Division of Planning.
10. Division of Publications.
11. Division of Red Cross and Veterans' Administration.

Each division is a separate unit in the organization, and the head of each unit or division is responsible to the Surgeon General for the proper functioning of his unit. All of these activities must be correlated and all must work closely together to have an efficient Medical Department. This, then, will give you an idea of the framework and the basis of the Naval Medical Corps. From this framework there goes out all of the multitudinous activities of our corps.

Perhaps to try and run the course of Naval Medicine it would be well to trace the career of a Naval Medical Officer from his original entry into the corps until he reaches the goal of every regular Naval Medical Officer —that of having command of his own hospital. If you will give me the privilege, I will trace my own career over some twenty-six

*Read before the Annual Meeting of the Oklahoma State Medical Association, May 11, Oklahoma City.

years of Naval service. My service is fairly typical of the Naval Medical Officer both in war and peace times.

Early in 1917 there appeared in the city of Memphis, Tennessee, a representative of the Medical Department of the Navy. His mission was to interest young doctors in the Navy Medical Corps, point out advantages and disadvantages, conduct the physical examination, check into the professional work of the individual and, if qualified, to recommend that individual for a commission in the Naval Reserve Force. I was one of the fortunate ones that received a commission. Shortly thereafter, orders came for me to report to the Naval Hospital, Philadelphia, Pennsylvania, for an indoctrination course prior to being sent to sea. At the Philadelphia Hospital I joined a small group that had been gathered from other cities and schools. After reporting we were told to get our uniforms and, in a short time, we blossomed forth with our first uniforms—first gold braid—a Lieutenant, Junior Grade, in the Naval Coast Defense Reserve. A short intensive course was given covering Naval Regulations, customs of the service, public health, surgery, medicine, obstetrics, x-ray, tropical medicine, laboratory, sanitation, eye, ear, nose and throat, psychiatry, etc. We had the privilege of knowing and working with such men as DaCosta, McCrae, Holloway, Judson DeLand, Fischer, Stellwagon, Chevalier Jackson, all of these brilliant men who, at that time, were the top men in their profession. I gave anesthetics for Dr. DaCosta and have also stood across the table from him as an assistant. From those men we gained much. The influence of their experience, their ability and their teaching we have carried to this day.

Just about midway of this course we were given the opportunity to qualify for a commission in the Regular Navy Medical Corps. This involved another profession and physical examination, and again I was among the successful ones. At this point I might say that in peace times every Naval Officer must prove his qualifications for promotion by examination at the time promotion comes along. When the course finished, I received orders to report to the Commanding Officer of the U.S.S. Nevada for duty. I became the Junior Medical Officer of the ship and had charge of the ward and laboratory under the Senior Medical Officer. Aboard ship I learned how to find my way around a ship, Naval terms, drills, inspections of personnel and material. I learned that a medical officer is largely responsible for the efficiency of his ship. He looks into everything concerning the ship and its crew from a medical standpoint; cleanliness, food, water, ventilation, uniforms, vaccinations, as well as taking care of those sick and injured, and he is fully responsible for all supplies and equipment belonging to his department.

Some three months later I suddenly received orders to a new duty, that of placing a ship in commission, and the duty as Medical Officer of that ship when commissioned. The ship proved to be a small yacht that formerly belonged to Horace Dodge, and the Navy was converting her into a sub-marine patrol vessel. This was another aspect of naval medicine, that of obtaining supplies and equipment, getting the sick bay of the ship located and built, examining the crew, records, and other activities. In addition I was made Communication Officer and, as such, I had charge of all secret codes and publications of the ship.

For a year our duty aboard that ship was chasing submarines up and down the coast of France. I was then ordered ashore in France where I had another year. The job there was inspection and fumigation of ships, in addition to caring for all the sick and injured aboard ships without medical officers. Also there was the opportunity to observe and assist in the treatment and care of war casualties and evacuation of casualties by hospital train and ship.

When the work of bringing the soldiers and sailors home was finished, I returned to the States and again to the hospital in Philadelphia, where I had charge of an active medical ward. After a period of time, orders came again to the hospital in Philadelphia, where I had charge of an active medical ward. After a period of time, orders came again, and off to sea as Medical Officer of a repair ship; another aspect of Naval Medicine where I learned industrial medicine, since the ship was a Mother Ship for destroyers and we could do almost any repair work necessary. From the repair ship I was sent to duty aboard a destroyer and finally arrived on the Asiatic station. For two years I was the only Medical Officer of nine destroyers, each with a crew of one hundred men and five to seven officers. There all the problems of small ships, surgery in civilian hospitals, treatment of venereal diseases, health of the various ports visited, seeing cholera, leprosy, leishmanniasis, kala azar, typhus, malaria, dengue, intestinal parasites, schistosomiasis (flukes). There was also the problem of learning how to cope with life in the tropics, tropical foods, clothing and quarters.

From there, I went on a three years' tour of recruiting duty at Minneapolis, Minnesota, a most profitable and instructive period. This included work at the University of Minne-

sota, visits to Rochester, serving on the staff of the Minneapolis General Hospital in Medicine, as well as carrying on the regular work of examination and enlisting of recruits. There came at that time a deep interest in the Naval Reserve, which also was most instructive. The last two years an interest in Urology developed, and those two years were spent with Dr. Oscar Owre in his large and varied practice where he taught me the basis of all the Urology I know. From Minneapolis I went to San Francisco for a short post-graduate course with Dr. Frank Hinman at the University of California in Urology, and from there to a hospital ship as Chief of the Urological Service. This time we were on the receiving end of the patients and there I learned a method of transportation and reception of patients from ships at sea to the hospital ship. When the tour of duty aboard the hospital ship was finished, I went to the U.S. Naval Hospital, San Diego, California, as Chief of the Urological Department. I remained there for three and one-half years with all the many and varied problems of a large and active urological service, for at that time we were having the veterans of World War No. 1 in large numbers in our naval hospitals. After the three and one-half years in San Diego, I went to sea again, and was ordered back to the Asiatic station as Senior Medical Officer of the U.S.S. Houston, the Flagship of the Asiatic fleet, which was sunk in the South Pacific. At the end of the year, I was sent to the U.S. Naval Hospital, Canacoa, P.I., as Chief of Urology. I then returned home and to the U.S. Naval Hospital, Mare Island, California, as Chief of Urology and Assistant in Surgery. I spent over four years in that hospital, then back to the Orient as Medical Officer of the Marine Embassy Guard, Peking, China. There I learned field tactics, sanitation and camps, as well as carried on the routine work of medicine and surgery. In 1940 I was sent to the Naval Hospital, New York, as Chief of Urology. This was only a short tour of duty. The promotions had come along with the years, and the younger men were coming up, so orders came to a training station as Executive of the Medical Department. From that time on all clinical duties were replaced by administrative work. There came mosquito control, incineration, pest control, detention, inspections, psychiatric problems and construction of new buildings.

In July, 1941, orders came to report to the Chief of the Bureau in Washington, and there orders were issued to proceed to the British Isles to establish a Naval Hospital and to become its Commanding Officer when established. We built two hospitals in North Ireland fully equipped and ready to work. In the meantime, the war picture changed radically. Pearl Harbor was attacked by the Japanese and our activities were directed to the West instead of the East; therefore, my services were considered necessary elsewhere. So, home it was again to receive orders to proceed to the West Coast as Executive Officer of a hospital that was being converted from a former club, and to assist in the expansion of that hospital. Much valuable experience was gained in construction work along with regular executive work of a hospital that was receiving war casualties. From that hospital sudden telegraphic orders came to proceed to Norman, Oklahoma to establish a Naval Hospital and to become its Commanding Officer when established. We built the hospital, equipped it and placed it in commission in about four and one-half months. The flag was raised on November 15, 1942 and on November 16, there were patients in the hospital. This is now a very active institution covering all hospital care, including an Out-Patient Clinic and hospitalization of dependent personnel.

This short summary of the career of one naval medical officer gives you broadly the many activities included in the term "Naval Medicine." The Medical Officer must always remember that he acts in a dual capacity; he is a Naval Officer as well as a doctor, with all the attendant responsibilities.

SUMMARY

Naval Medicine covers briefly: Indoctrination, interne training, teaching, specialization, sea duty on all types of ships, shore duty in all shore activities, sanitation, public health, recruiting, recruit training, organization, construction of dispensaries and hospitals, temporary hospitals, permanent hospitals, all war casualties ashore and afloat, venereal disease control, administrative duties, and finance and accounting for funds, setting up ship's service stores, welfare for the enlisted personnel, recreation for personnel, submarine duties, aviation medicine, sanitary reports of cities visited, quarantine laws, military, naval and international law, and many others not mentioned in detail.

A good Naval Officer is one who is well grounded in all of these activities; not only one who has acquired skill in one of the various specialities but also one who is capable of carrying on his job and his profession in any duty in which he may be assigned. He is a doctor, a teacher, a leader, a builder, frequently a lawyer, and often in certain areas he takes the place of the priest of any faith.

Trichomonas Vaginalis*

KENNETH J. WILSON, M.D.
OKLAHOMA CITY, OKLAHOMA

The genito-urinary infestation of the protozoan parasite Trichomonas is of increasing significance because of universal prevalence and recognition of its potentialities for producing remote and systemic disease, as well as that of the genitals. Early impressions of the etiology and distribution of this parasite were that it was a transition of the buccal and alimentary types to a morphologically increased stature and virulence, in the more favorable medium of vaginal secretions, that resulted in a troublesome leucorrhea. It was believed to be the product of poor hygenic habits, since its incidence was first observed in the clinic-type patient, rather than of an infectious or communicable nature. More recent observation has disclosed probably dissemination to be through inoculation from contact with infected individuals. The usual mode of communication being through contaminants, particularly toilet seats, and occasionally by direct implantation in coitus, as the male is rarely infected. Furthermore, it is not the product of uncleanliness, although this may be a contributing factor, as it occurs as frequently in the fastidious individual and young females who would seem to have hygenic advantages as in the under-privileged. It is my belief that ignorance of the mode of transmission of this highly communicable malady, contributes to its spread. Likewise, the indifference of our profession, as some have regarded its presence in the genital flora of no importance, is far short of the responsibility charged to us in preserving the health of a populace. The vast number of females seen with the disease presenting symptoms, as well as those who are symptom-free, suggest its epidemic nature.

Apparently school contacts constitute one of the chief sources of infection. Upon inquiry, many mothers recall that a school-age daughter had some unusual vaginal secretion before she noted her own genital irritation. Microscopic examination may verify the presence of trichomonas in the juvenile. Another important observation is that the victims who have been advised that any female may harbor the organism whether she is aware of it or not, are far less likely to return with reinfection.

*Read before The Doctors Dinner Club of Oklahoma City, Oklahoma, January 19, 1943.

A study of the epidemic that occurred in Wiesbaden in 1939 disclosed the presence of trichomonads in the blood of domestic animals and fowl as well as the excreta of flies. There was difficulty in finding the parasite in direct blood examination, but its identification was simplified by culture. In this country there has been no verification of these findings, although some of my experiences in clinical observation certainly point toward the likelihood of blood stream invasion with focalization on certain serous structures. I recall a case of acute endocarditis in a very elderly man who had a fulminating trichomonal urethritis and no evidence of other infection. Another case of pleuritis with effusion in a middle aged man with trichomonal urethritis, without respiratory or other infectious processes, showed motile trichomonads in the aspirated pleural secretion. A recent report of a case of pneumonia calls attention to the presence of buccal trichomonas in quantity as the only organism found in the secretion. Of course, these instances do not establish facts, but they lend impetus to curiosity.

While clinicians agree that the habitat of trichomonas vaginalis evidences a predilection for the genital and urinary tracts of females and accounts for many genito-urinary inflammations, there is no satisfactory explanation of how it invades the deeper structures. Many contend that it may invade any tissue. Certainly one sees many pelvic inflammations, that have been classified as perimetritis, which are undoubtedly due to this organism.

From our knowledge of the manner of invasion of the gonococcus and the parellel of clinical evidence in trichomonal cases, it is indicative of similar, if not identical, mode of extension. The known tendency of gonococcic infection to remain a local process, although systemic invasion occasionally occurs through the blood stream, is also imitated by the trichomonas vaginalis.

Trichomonas is too often responsible for urinary tract infection, particularly in the gestational state. Some observers contend that the trichomonas is so commonly demonstrable in the urine of those having vaginal infection they have come to regard every case of vaginal trichomoniasis as involving the

urinary system. Fortunately, in most instances, the distribution is confined largely to the urethra and bladder, so that it is accessible to local therapy. I have been able to identify trichomonads in the urine in most of my cases with this type vaginitis.

For practical reasons most clinicians use the hanging drop method of examination for the organism. I am sure that there is ample familiarity with this technique in the vaginal smear, but I fear a lack of appreciation that in frequent urination there is a constant flushing of the urinary tract that washes away the organism before it reaches anything like maturity, so that one must look for immature forms that may be identified by their motility. Furthermore, great dilution necessitates more diligent search, on account of scarcity of organisms in the specimen. It is mandatory that the urine be obtained by catheterization and that it be examined immediately, before chilling of the parasite, as it loses motility with change of temperature for any appreciable time.

Time will not permit elaboration on symptoms of trichomonas vaginitis, which are already familiar to all. Although one should have in mind the occurrence of genital itching, burning, discharge of a scalding nature and fetid odor, bleeding, sense of weight and soreness in the pelvic structures and occasionally systemic symptoms similar to that of other infectious processes. In urinary tract involvement there may be the usual frequency, burning and tenosmus seen in any infectious lesions of this system.

A flood of literature, reaching the doctors' desks, mostly from commercial sources, may arouse optimism in treatment that is destined to disappointment. Discussion of the subject is directed toward treatment of the symptom leucorrhea, rather than rational consideration of scientific approach. In view of evidence that the infection not only invades the vaginal and urinary tracts, but the endometrium, tubes and accessory genital and urinary glands, therapy must be designed to reach these elusive foci. Therefore, successful management is contingent upon identification of every structure involved. While the organism succumbs to any parasitic or antiseptic agent, there are two general means of attack; local exposure to the remedial agent and chemotherapy. Gynecologists are agreed on desirability of securing and maintaining a normal vaginal pH, to facilitate growth of protective Doderlein bacilli in any vaginal invasion, which is facilitated by introduction of additional acid and glucose to perpetuate an antagonistic flora.

The constant association of a diplo-streptococcus with trichomonas vaginalis has led to a great deal of speculation on its pathogenicity. It was originally suspected of being the real culprit, but late experiments disclose the possibility of inoculation of trichomonas without bacterium, although, none are ready to dispute the likelihood of its being a contributing factor, particularly, in presuming lymphatic extension. However that may be, it is sufficient for therapeutic purposes that we be guided by the distribution of the parasite. In this connection, I should like to call attention to the necessity for differentiation of the gonococcus by the Gram method of staining. It is hardly possible to distinguish these similar cocci, unless one be intracellular, except by the positive staining of the streptococcus in contradistinction to the negative gonococci.

Out of the confusion of suggested procedures and remedial agents one must adopt some form of routine. It should begin with advising the patient of the possible sources of infection and pointing out the means of avoiding recurrence. A careful microscopic study of specimens from the areas, usually involved to determine distribution of the parasite, will enable one to apply therapy where indicated.

In vaginitis daily cleansing with mild acid solutions and the introduction of some preparation containing a parasiticide, acid and glucose, for a period of two weeks will cure most cases. If there is also involvement of the urinary tract it should have simultaneous treatment. When limited to the urethra and bladder, dilation and instillation of silver solutions and others will suffice. If there is higher extension, chemotheraphy is indicated. In the urinary tract it is not known whether the chemotherapeutic agent influences the infection through its effect on the blood or by its presence in the urine, although, it seems certain the beneficial effect on the pelvic infection is blood born. Vaginal and cervical infection does not seem to be influenced by chemotherapeutic drugs.

Zemmer
PRESCRIBE or DISPENSE ZEMMER PHARMACEUTICALS
Tablets, Lozenges, Ampoules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for catalogue.
Chemists to the Medical Profession
THE ZEMMER COMPANY, Oakland Station, Pittsburgh, Pa.
OK—9-43

At this juncture I should like to note that neo-prontosil has been the most effective drug used in urinary tract invasion and does not have to be administered in maximum dosage. In pelvic involvement there does not seem to be any appreciable difference between it and the sulfa drugs. Bartholin glands are seldom amenable to treatment unless distended so they can be identified. Cervical involvement, if the glands are invaded, requires eradication of the cervicitis by the thermal destruction. Salpingitis is treated by chemotherapy and pelvic heat.

The known effect of estrogens in increasing cornification of genital epithelium in the treatment of gonococcic infections, particularly in the juvenile and menopausal ages, suggests its indication as an adjunct in the treatment of obstinate trichomal infestation. Most of the cases clear up with about two weeks treatment. Some will require an additional course. A few are almost perpetual, probably because of our inability to locate and reach some foci of infection. All should be advised to use acid douches through the menstrual periods for some four months following the apparent eradication of the organism, as recurrences and reinfection is most likely to appear at this time.

The Transmission of Diseases by Blood Transfusions

A. RAY WILEY, M.D.
TULSA, OKLAHOMA

I have often been asked, "is there any danger of transmitting disease by blood transfusion or plasma transfusion"? The answer, definitely, is, "yes, under certain circumstances." Fortunately, these circumstances are comparatively rare. Any blood-born infection is subject to transmission by transfusion. Of all the diseases possible to transmit, syphilis is the one most feared and may be the one most often occurring.

In 1940 I reviewed the literature on this subject and as far as possible, the case records of 33 cases of syphilis were proven to be due to blood transfusions from syphilitic blood donors. In order to establish transfusion as the source of a patients' syphilis, it must be definitely shown by clinical and laboratory studies, (a) that the recipient did not have syphilis prior to the transfusion, (b) that the recipient does not have nor does later develop a chancre, (c) that the period between the transfusion and the development of secondary symptoms be within reason, and, finally, (d) that the stage of syphilis in the donor was not chronic (late latent) nor influenced by pregnancy of the donor.

In performing transfusions we are apt to feel secure by making a Wassermann test on the donor. I cannot too strongly emphasize the fallacy of this. In reviewing the cases of known transfusion syphilis, many of the donors had negative Wassermann tests at the time of transfusion, only to become strongly positive later. From the time of initial invasion (chancre) until the antibody (reagent) is sufficiently developed to give a positive test, may be from two weeks to two months. It is in this period wherin lies the danger from transfusion. The Wassermann reaction does not depend upon the presence or absence of the spirochetes in the blood stream but upon the presence or absence of antibodies.

Syphilis is transmissable when, and only when, active spirochetes are present in the donors' blood. This occurs only during the acute stage of the disease, even before the donors' Wassermann has time to become positive. The duration of the infectious period in the untreated case is not definitely known. It disappears rapidly in the treated case and certainly is absent in late latent syphilis. The greatest danger is in obtaining blood from a donor who has become infected without his knowledge and the infection so recent that any blood test would be negative at the time of transfusion. Later in the course of the disease, the donors blood may show a positive Wassermann and yet be perfectly safe for transfusion. Note the following: Morgan[1] says, "not a single instance of incontestible 'transfusion syphilis' has been reported in which the disease was transmitted by blood from a donor with latent or chronic syphilis uninfluenced by pregnancy. In repeated instances donors with chronic syphilis have failed to transmit the disease." Eberson and Ergman[2] injected blood from 73 individuals with chronic syphilis into rabbits' testicles and not a single infection resulted; yet, with similar technique, blood from patients with acute syphilis regularly induced syphilis in

the rabbits. McNamara[3] deliberately gave 17 transfusions to 10 patients from 6 donors known to have chronic syphilis. No case of syphilis occurred in any of the recipients.

What is a reasonable period for secondary symptoms to appear following transfusion? In a study of the 33 cases mentioned the period varied from 28 days to 120 days, with an average of 70 days. It is reasonable to assume that, if transfusion syphilis has occurred, secondary symptoms must occur between three and a half to four months.

From this point it follows, that an examination of the donor is most important in all transfusions. This brings up the question, and an important legal one, who is responsible for the examination of the donor. Several of my legal advisors, without quoting actual case decisions, are definitely of the opinion that the responsibility rests with the patients' attending physician. Even the furnishing of professional donors by the hospital does not relieve the physician. If the attending physician desires and does have a hospital resident physician or an interne to perform the examination, the attending physician is still responsible for any error by the interne or resident. The technical laboratory or any of the laboratory staff of the hospital has no obligation other than obtaining blood specimens and correctly reporting the true findings for transfusion. This department cannot be charged with the responsibility of questioning nor examining the donor.

The extent of the examination of a donor depends upon the individual judgment of the examiner. I take a very careful history, particularly in reference to any contacts with any contagious diseases. Not only is the donor questioned about syphilis but any and all contacts with acute eruptive diseases, also typhoid, malaria, meningitis, pneumonia, typhus and streptococcic infections. Following the history, a very careful search is made for any evidence of disease. A close search is made in both male and female donors for any evidence of a chancre or beginning chancre. There is no excuse for the all too common practice of simply sending a group of donors to the laboratory without any examination other than a Wassermann test and using any blood that passes the laboratory. Of the 33 cases already mentioned, seven of the donors had secondary eruptions on them at the time of the transfusion. Such carelessness is deplorable and must be condemned. Do not be misled by the fact that the donor is a relative of the patient. Of the 33 cases, 16 of the donors were relatives of the patients. Syphilis is no respecter of persons.

So far, I have considered transmission of syphilis with whole blood transfusions. What are the possibilities with plasma transfusions? If the plasma of one infected donor is added to a batch of pooled plasma, it would be diluted but all would be contaminated. Does freezing plasma destroy the spirochetes? Freezing does not destroy ordinary bacteria. So far as I know, no research work has been done to determine the viability of the spirochete after a period in frozen plasma. Until this is done we must assume that freezing is no protection against infection. Converting plasma to the dry state should destroy the spirochetes, but here again, new work must be done. It is customary to carefully check the sterility of all plasma before it is reduced to the powder state, but sterility tests for syphilis and malaria cannot be made by ordinary methods.

How can one eliminate all danger of spirochetal or treponemal contamination in blood or plasma? A very good study of this has been made by Kolmer[4]. His conclusions are, "all that is necessary is to dissolve .1 gm (neoarsphenamine) in 10 cc of sterile distilled water and add 1 cc (0.01 gm. of the compound) to each 100 cc of citrated blood, yielding thus a 1:10,000 solution. After mixing and standing at room temperature for fifteen minutes, it is ready for intravenous injection." Kolmer refers to whole blood to be used immediately. If any doubt exists about plasma being contaminated with syphilis spirochetes, that same technique may be carried out just before its use.

SUMMARY

The possibilities of infection from blood transfusions and plasma transfusions have been pointed out. The danger from syphilis and the dangerous and innocent periods of transmission are discussed. The necessity of careful donor examinations is given. The responsibility of these examinations is pointed out. Safety precautions are given.

THE WILLIE CLINIC AND HOSPITAL

A private hospital for the diagnosis, study and treatment of all types of neurological and psychiatric cases. Equipped to give all forms of recognized therapy, including hyperpyrexia, insulin and metrazol treatments, when indicated.

JAMES A. WILLIE, B.A., M.D.
Attending Neuro-psychiatrist
218 N. W. 7th St.—Okla. City, Okla. Telephones: 2-6944 and 3-6071

In conclusion I wish to say that nothing in this paper should deter anyone from performing blood or plasma transfusions whenever clinical conditions justify a transfusion. Rather it is designed to enhance the value of transfusions, to promote safety in transfusions and to stimulate interest.

BIBLIOGRAPHY

1. Morgan, Hugh J.: Amer. Jour. Medical Science, Vol. 189, No. 6. June, 1935.
2. Eberson, F. and Ergman, M. F.: Jour of A.M.A., Vol. 160, No. 76. 1931.
3. McNamara, W. L.: Amer. Jour. Syphilis, Vol. 9, page 470. 1935.
4. Kolmer, John A.: Amer. Jour. Syph., Gon. and Ven. Diseases, Vol. 23, No. 2, pages 150-164. March, 1939.
5. Gilman, Robert L.: Syphilis and Transfusion. Indian Jour. of Ven. Diseases, Vol. 2, No. 3. September, 1936.
6. Transmission of Syphilis by Blood Transfusion: Current Comment. Jour. of A.M.A. July 11, 1931.
7. Rein, Chas. R.: The Control and Prevention of Transfusion Syphilis. Jour. A.M.A., Vol. 110, pages 13-18. January 1, 1938.
8. Mandelbaum, Harry: Transmission of Syphilis by Blood Transfusion. Jour. A.M.A., Vol. 106, pages 1061-1063. March 28, 1936.
9. Cummer, Clyde L.: Transfusion Syphilis. Amer. Jour. Med Sciences, Vol. CLXXXV, No. 6, pages 787-789. June,1933.
10. Polayes, Silik H. and Lederer Max: The Transmission of Syphilis by Blood Transfusion. Amer. Jour. of Syphilis, Vol. XV, No. 1, page 72. January, 1931.
11. Williamson, G. Richards: Congenital Syphilis from Blood Transfusion to the Mother During Pregnancy. The Amer. Jour. of Syphilis. Vol. XVII, No. 4. October, 1933.
12. Post, Chas. D. and Cooney, Gerald C.: Accidental Transmission of Syphilis by Blood Transfusion. Reprint. Jour. A.M.A., Vol. 100, page 258. January 28, 1933.
13. Blood Transfusion from Syphilitic Patient. Jour. A.M.A., Vol. 107, page 303. Reprint. July 25, 1936.
14. Transmission of Syphilis by Injected Blood. Jour. A.M.A., Vol. 100, page 281. January 28, 1933.
15. Jones, Harold W.: The Transmission of Syphilis by Blood Transfusion. Amer. Jour. of Syphilis, Vol. 19, pages 30-38. January, 1935.
16. Straus, R.: Kline Exclusion Test in Prevention of Transfusion Syphilis. Reprinted from Archives of Dermatology and Syphilogy, Vol. 36, pages 1039-1043. November, 1937.
17. McCluskie, J. A. W.: The Transmission of Syphilis by Blood Transfusion. The British Medical Jour., Vol. 1, pages 264-266. February 11, 1939.
18. Kast, Clara C.: The Treponemicidal Activity of Arsphenamine and Neoarsphenamine in Vitro with Special Reference to Citrated Blood and a Suggested Method for the Prevention of Transfusion Syphilis. Amer. Jour. Syph., Gon. and Ven. Diseases, Vol. 23, pages 150-164. March, 1939.
19. Willis, Morton W.: Transfusion Syphilis. New York State Jour. Med., Vol. 37, pages 60-67. January 1, 1937.
20. Klauder, Joseph V.: Accidental Transmission of Syphilis by Boold Transfusion. Amer. Jour, Syph., Gon. and Ven. Diseases, Vol. 21, pages 652-666. November, 1937.
21. Averbuck, Samuel H.: Syphilis Transmitted by Transfusion. Jour. Mt. Sinai. Hospital, Vol. 5, pages 627-632. January, 1939.
22. Hendrick, Harriet: Diseases Transmitted in Blood Transfusion. The Proceedings of the Inst. of Med. of Chicago, Vol. 10, No. 10, page 185. January 15, 1935.

Etiology of Malignant Neutropenia*

COLONEL WILLIAM H. GORDON, M.C.
BORDEN GENERAL HOSPITAL
CHICKASHA, OKLAHOMA

Malignant neutropenia is a condition characterized by an acute onset of marked malaise, prostration, weakness, and high fever which may or may not be accompanied by ulcertative and gangrenous angina of the buccal mucosa, and occasionally is associated with ulcerations of other mucous membranes of the skin. It often exhibits a partial or total leukopenia accompanied by an absence of polymorphonuclear leukocytes.

At present, the etiology of the disease is debatable. Many writers have considered it to be a chronic Vincent's angina which has suddenly become malignant. Others believe it to be a very severe sepsis, whose causal agent has a definite action upon myeloblastic tissue and the bone marrow. A few believe it to be one of the end results of some chronic illness. Still others consider it to be due to a toxic substance similar to benzol or some other hydrocarbon which depresses or paralyzes activity of the bone marrow and, as a result, causes a marked diminution in the manufacture of granular leukocytes. As a result of this loss of fighting cells, the tissues of the body are invaded by the bacteria which ordinarily exist in its cavities without producing symptoms, following which invasion, gangrene, ulceration, sepsis, etc., occur.

Others have theorized as follows concerning the disease: first, the characteristic ulcerations found in malignant neutropenia are the result of bacterial emboli which have occluded the vessels to the affected area; second, that these lesions are secondary to a septicopyemia. This second theory indicates that this is a specific disease resulting in gangrenous areas caused by a specific toxin against the leukocytes. Thirdly, it is considered to be a primary affection of the bone marrow resulting in a decreased formation of granulocytes, with resulting lowering of resistance of the patient, which terminates in intercurrent infection, necrosis of mucous membranes and skin, and finally death. This is probably the most plausible theory since no emboli are found at autopsy.

The following classification covers all the various etiological factors of neutropenia which have been presented in literature: 1. unknown, 2. chemicals and drugs, 3. bacterial and protozoan (acute and chronic), 4. allergic, 5. embryonic, 6. biological, 7. physical, 8. incidental, 9. endocrine, 10. experimental, 11. splenic neutropenia.

*Read before the Annual Meeting of the Oklahoma State Medical Association, May 11 at Oklahoma City.

CHEMICALS AND DRUGS AS CAUSES OF MALIGNANT NEUTROPENIA

Neutropenia, in recent times has been prominently associated with exposure to benzol, hydrocarbons, and tri-nitro-toluene. Further we find those cases in which it has occurred following the treatment of some conditions with arseno-benzol, bismuth, bismarsen, amidopyrine, barbital, dinitrophenol, one of the sulfonamides, and other drugs. These have all been described in medical literature as definite causes by various authors.

McCord studied benzol poisoning as an industrial disease and found marked similarity between that condition and agranulocytosis. Dameshek has also described benzene poisoning with accompanying agranulocytosis. While under treatment for syphilis, several cases have been reported in patients to whom arseno-benzol and bismarsen had been given. Other cases have been recorded in which bismuth was given alone. An identical picture has been reported in chronic tri-nitro-toluene poisoning. Clyde Brooks reported a case in a young physician which occurred after drinking an excess of alcohol. Many cases have been reported following the carelessness or indiscriminate administration of the sulfonamide series of drugs.

Madison and Squire believe a large percentage of the cases of malignant neutropenia are due to the use of drugs containing amidopyrine and barbital. Watkins has published a few reports of the disease which he considers were caused by the above drugs and their combinations.

However, in our series of 97 cases we find but one which may belong to this group. We have corresponded with many psychopathic hospitals and find that no cases of the condition have been diagnosed in such institutions, although the above drugs had been used in large amounts.

Kracke, in his study of the causes of death from the United States Bureau of Vital Statistics, found that a large percentage of patients who had malignant neutropenia were women, and that a high percentage occurred among physicians, nurses, relatives of people connected with the medical profession, hospital maids, medical students, and laboratory technicians. In the study presented herein, of more than seven hundred cases, including 97 cases seen by the writer and the rest from literature, it has been found that approximately 20 per cent of the patients were from a group closely associated with the medical profession. All these patients and others were closely questioned as to the use of drugs which they may have received as samples and those prescribed by physicians, and in only a few cases can the intake of medicines of the benzene series be considered a causative factor of malignant neutropenia and that but indirectly. As a result of this study, in our opinion only a small per cent of these cases of malignant neutropenia cannot be attributed to the careless use of drugs.

BACTERIA AND PROTOZOA AS CAUSES OF MALIGNANT NEUTROPENIA

The following organisms have all been described as accompanying or etiological factors of malignant neutropenia; streptococci of all types staphylococcus albus and aureus, Vincent's aspirillum and fusiform bacillus, pneumococcus, gram negative and gram positive bacilli, bacillus coli, bacillus pyocyaneus, bacillus subtilis, meningococcus, diptheria bacillus, and bacillus Welchii, acute Vincent's angina, severe local and general sepsis, epidemic influenza, pneumonia, malaria and meningitis have been accompanied or followed by this condition.

Cultures from the blood, gums, mouth, and throat of patients suffering from malignant neutropenia have yielded the large and diversified group of micro-organisms mentioned above. However, as is usual in such cases, no single strain of bacteria can be pointed to directly as the specific etiological agent of malignant neutropenia.

Lovett, Klein, Maschke, McKeen, Kahlstrom, Kenny, Hammock, Zeilor, and many others have reported cases from which a pure culture of bacillus pyocyaneus was obtained. We have one case which yields a pure culture of bacillus pyocyaneus and in animal studies with this culture, we have produced leukopenia with agranulocytosis. Hill's case occurred in a woman of 35 years of age after extraction of a molar tooth. Many organisms, including Vincent's spirillum and bacillus were found in the smear from gangrenous gums. Skiles and others have reported the disease after Vincent's angina and also after extraction. Skiles, too, believed that the disease was due to a specific infection in the gangrenous area, which secreted a special toxin against cells of the granulocytic series. Hirsch and others, however, stressed the point that its origin was not in the tonsil. Several of our cases have had their tonsils removed previous to the onset of granulocytopenia.

Frank and Smiley reported a case during an attack of acute mastoiditis. One case was reported with gas bacillus septicemia. Iberbein writes "Agranulocytosis is tuberculosis of the bone marrow." Others have reported the disease with tuberculosis.

A large number of Detroit cases as well as many of those in literature were sent to contagion hospitals with an entrance diagnosis of diptheria and were later diagnosed

as malignant neutropenia by laboratory and clinical tests or by autopsy. Two cases are reported in literature following diptheria. Also, the condition has been reported following pneumonia, malaria, and other infections.

ALLERGY AND NEUTROPENIA

Several investigators have considered allergy as an etiological factor in malignant neutropenia. Several patients among those reported have shown an eosinophilia. However, the evidence in favor of an allergic cause of agranulocytosis is not convincing although asthma has been reported as a possible predisposing cause in the development of a neutropenia. One writer has seen the condition following the use of pentonucleotide while others have expressed a belief that malignant neutropenia may be an allergic reaction following pyramidon therapy. Among our cases was one which did not recover from the third attack of the disease. At post mortem, the intestinal tract showed giant urticarial patches on the mucous lining of the large and small bowel.

THE PRODUCTION OF MALIGNANT NEUTROPENIA BY PHYSICAL AGENTS

The chief physical agent said to have produced neutropenia is the x-ray used in deep therapy. However, in review of literature only one case was reported following Roentgen-ray therapy. Extractions of teeth, and fractures of bones, especially the skull and leg bone, and other injuries of the osseous tissue not infrequently preceded the development of agranulocytopenia.

HEREDITY AS A FACTOR IN MALIGNANT NEUTROPENIA

Some authors, studying the question of neutropenia, have ascribed its cause to a congenital deficiency of the bone marrow or to a maturation arrest of the leukocytes.

Thompson reported seven cases which exhibited the picture of an acute infectious disease with high fever, low puise, enlarged lymph glands, and a low white count with neutropenia. The majority of these cases recovered but the cause was not determined. Laude, too, has written concerning this group. Fitz-Hugh and Krumbhaar believe it to be a maturation arrest. We believe that in a large per cent of the cases there is a congenital deficiency in the bone marrow. This is supported strongly by those instances in which one member of a family developed malignant neutropenia, while another developed myeloid leukemia, and also by the occurrence of two cases of neutropenia in one family. Hart has also reported the condition in two sisters, as has Zinninger.

MALIGNANT NEUTROPENIA INCIDENTAL TO OTHER CONDITIONS

Malignant neutropenia has developed in individuals while they were under treatment or observation for cholecystitis, cardiac disease, amoebic and ulcerative colitis, furunculosis, syphilis, tuberculosis, and carcinoma. George Blumer in 1930, showed that an agranulocytic blood picture may occur in disease of local and general sepsis other than agranulocytic angina. William Murphy, Leuchtenberger, N. Christoff, and others have confirmed this report. Removal of badly infected teeth is prominent as an incidental condition associated with malignant neutropenia. Edith Peritz' case, together with many others in literature, also three of our cases occurred while being studied at the clinic or hospital for bile duct disease at the time of their initial attack. Mack and Klages write concerning the anemias of cancerous bone marrow. One physician recently had a chronic severe diabetic who developed rectal ulcerations accompanied by severe neutropenia which terminated in death. Autopsy revealed intestinal ulcerations.

ENDOCRINE FACTORS IN MALIGNANT NEUTROPENIA

As with allergy, the evidence in favor of an endocrine dyscrasia underlying the neutropenic state is still scant and unconvincing. Beyond a cursory report describing the menses and pregnancy as contributory etiologic factors the literature supporting this theory is very meager.

SPLENIC NEUTROPENIA

The first series of cases on this interesting condition was reported by Doan and Wiseman in 1942. As stated earlier, this type of neutropenia is believed to be the result of a hitherto unreported cause of neutropenia; namely a pathologically altered physiological function of the normal spleen. Fundamentally it is closely allied to congenital hemolytic acholuric jaundice and thrombocytopenic purpura for the following reasons: in hemolytic jaundice there is an increased destruction of the erythroytes in the spleen; in thrombocytopenic purpura there is an increased destruction of the thrombocytes in the spleen; and in splenic neutropenia there is an increased destruction of neutrophils in the spleen. Further historical aspects of the condition are not available at this time. From the few cases reported it appears that the condition may be subdivided into three classes; acute, sub-acute and chronic. It is devoid of seasonal preference. From the few cases recorded, it evidently parallels malignant neutropenia in the ratio of two females affected to every male. The age inci-

dence likewise appears to be similar, mainly in the fourth and fifth decades.

The symptoms of this condition vary with the severity. In the chronic case the patient complains of little else but tiredness and general malaise. In the acute case there is usually a concommitant hemolytic anemia and thrombocytopenia of varying degrees. Usually in the acute type the onset is characterized by a cold, accompanied by hyperpyrexia, rapid pulse, great prostration, and not infrequently, ulcerations of the tonsillar fossae and buccal mucous membrane. Later on the ulceration may be quite severe, even occurring in the skin. Jaundice with negative direct Van den Bergh is common. When anemia is present it is of the macrocytic hemolytic type with reticulosis. When bleeding is present it varies from a mild purpura to severe epistaxis, black and tarry stools, extensive petechiae and ecchymosis in the skin. The spleen is constantly enlarged but not tender.

The blood picture closely resembles that of malignant neutropenia in that there is present marked diminution in the neutrophils of the peripheral blood and resultant leukopenia. Monocytes and lymphocytes are equally well represented. But unlike malignant neutropenia, thrombocytopenic purpura with low platelet count, and hemolytic anemia are the rule.

Scrapings of the splenic pulp showed a marked increase in the splenic clasmatocytes within which cells were ingested neutrophilic leukocytes, as well as some erythrocytes and an occasional normoblast. No other abnormalities were detected in the spleen.

Sternal marrow revealed a marked hyperplasia of myeloid cells without any appreciable shift to the left. The granular leukocytes seen were the mature polymorphonuclears and the C myelocytes. There was no toxic destructiion of these marrow cells and no maturation arrest.

In malignant neutropenia, therefore, the destructive process affects certain of the myeloid elements of the marrow, causing the inhibition of neutrophil production; in splenic neutropenia the spleen no longer phagocytoses old worn out blood elements along, but on the contrary destroys normal healthy blood elements as well. In the marrow of malignant neutropenia there is a dearth of neutrophils; in the marrow of splenic neutropenia there is usually a hypesplasia of myeloid elements. In malignant neutropenia, anemia and thrombocytopenia are exceedingly rare; in the splenic neutropenia, hemolytic anemia and thrombocytopenic purpura are the rule. In malignant neutropenia the spleen is usually not enlarged; in splenic neutropenia it is constantly enlarged. Malignant neutropenia is unaffected by splenectomy; splenic neutropenia as well as its concommitant hemolytic anemia and thrombocytopenic purpura, is invariably cured by splenectomy.

If these points are kept in mind, there should be no confusion between these two distinctly different types of neutropenia. Splenic neutropenia could only be confused with leukemia of the subleukemic type. But here, splenic neutropenia never shows the alterations in the quality of the myeloid elements despite the fact that myeloid hyperplasia is present in both, while qualitative changes in myeloid elements is the rule in sub-leukemic leukemia.

SUMMARY OF THEORIES OF THE ETIOLOGY OF MALIGNANT NEUTROPENIA

1. Neutropenia following chronic Vincent's angina.
2. Severe sepsis affecting myeloblastic tissue and bone marrow.
3. End result of chronic illness.
4. Toxic substances depressing or paralyzing bone marrow activity.
5. Secondary invasion by bacteria in tissues with lowered resistance.
6. Chemical poisoning—as by benzol, benzene, etc.
7. Drug poisoning—as barbital, amophridine and sulfonamide drugs.
8. Allergy.
9. Endocrine dyscrasia.
10. Possible congenital absence of a necessary substance in bone marrow which makes the individual susceptible to the development of leukopenia.

However, because of the multiplicity of possible etiological factors as presented in the literature, it is believed that the absolute etiology of the disease is still unknown. If we can judge by similar experiences with other diseases, undoubtedly an entirely diff-

J. E. HANGER, INC.
Branches and Agencies in Principal Cities
Artificial Limbs, Braces, Crutches, and Dobbs Scientific Truss
Phone 2,8500
Oklahoma City, Okla.
612 North Hudson

erent cause than has so far been considered may eventually be discovered.

DISCUSSION

HUGH JETER, M.D.

It has been a pleasure to have read Colonel Gordon's manuscript. He has covered the subject of etiology very thoroughly and I have the feeling that what I may say will add very little to his paper.

Permit me to emphasize the fact, which the experience of many has seemed to prove, namely, that the specific etiological agent has not yet been definitely established. The following is a case which I reported in the Southern Medical Journal in 1939, which illustrates the uncertainty and illusiveness of the etiological factors:

A surgical case of Dr. D. H. O'Donoghue's, in St. Anthony Hospital, who had a "dry osteomyelitis." That is the name I gave it because she had a destructive lesion of the femur, later followed by a similar destructive lesion of the opposite femur, both operated and drained and nothing but necrotic material obtained. It was not only dry, but it was also sterile and the only conclusion I could make was that the destructive bone lesion was the result of a tiny embolus in each instance. This is mentioned because there is some reason to believe that the absorption of necrotizing tissue is a factor in the production of malignant neutropenia.

This lady had five successive recurrences of agranulocytosis of neutropenia, each with sudden drop to below one thousand in the total white count with practically no neutrophils and with corresponding elevation of temperature to as high as 104 to 106, and the associated ulcers of the throat, and she was desperately sick each time.

Ample opportunity to investigate different methods of treatment was afforded by the recurrences. Pentanucleotides, transfusions, parenteral liver and other less commonly used forms of therapy were tried and, strange enough, during the last episode or paroxysm no treatment whatever was given and the patient took the identical course as those which preceded. The drainage became very thin and watery as the white count went down and, we thought perhaps somewhat more abundant and again each time more cloudy and less abundant when the white count improved. This lady is still living and well and her white count during the last two years has been checked and is within normal limits.

Vincent's infection and a few other saprophytic types have been known to be followed by, or associated with, malignant neutropenia.

It is interesting to note that there has been a wave of decreased incidence of malignant neutropenia. Dr Kracke's study and reports in connection with the incidence have surely been a factor in reducing the, shall we say, careless use of amidophrine. When I say the specific etiological agent has been discovered, I do not wish to discount the value of the discovery of such factors, and believe amidopyrine has been a factor.

In one of our cases we obtained repeatedly a gram negative bacillus by blood culture, which proved later to be nonpathogenic to monkeys. I believe with malignant neutropenia we may expect non-specific blood stream positive cultures as we do with leukemia, because the barriers to infection have been weakened and the resistance of the patient permits invasion of most any type of micro-organism which happens to inhabit the area or areas of ulceration. This probably explains the inconsistant reports concerning various bacteria which have been recorded by different observers as possible etiological agents.

I am grateful to Colonel Gordon for this fine paper.

PHYSICIANS AS ARTISTS

"From time immemorial, medicine and art have been closely associated. The same skill that makes the surgeon's fingers deft with scalpel and ligature is at work in the beautiful examples of sculpture and carving shown in this book. The eye that so quickly and accurately evaluates the graduations in color and texture between normal and pathologic tissue coordinates the hand that wields the painter's brush. The man who chooses medicine as his life's work is largely motivated by a love for his fellow man, else he would select a vocation offering greater monetary reward. From the beginning, he is trained to exercise his powers of observations, and in time develops imagination, sympathy, understanding, philosophy and reverence, all of which are the very essence of art. Moreover, he deals with that most exquisite form of divine art and beauty, the human body.

"An artist-physician has said; "The tendency of most persons is to regard the artist with awe as a superman endowed with talents not vouchsafed to the ordinary mortal. Most doctors have a latent artistic sense which may be purchased for a small sum and any local artist practice. When opportunity affords, slip away to the park or country, sit down on a camp-stool and practice sketching from nature. At first the results may not be satisfying, but in course of time you will be gratified to notice a marked improvement. An ample sketching kit may be purchased for a smal lsum and any local artist will be glad to give you instruction.'

"At the least, every physician is able to develop a sensitiveness to and an appreciation for fine art. He can also cultivate a hobby, which, if not one of the fine arts, is in the class of 'work by the side of work.' Dr. Charles A. Dana, who has always stressed the value of cultural medicine, has advised; "Be a collector, for example, of stamps or automobiles, or old books, or neckties or pins; or find diversion in some collateral branch of science; the lore of birds, of fishing and shooting. Make a garden or cultivate shrubs and flowers. These kinds of activities will make your life happier and your professional character more attractive and effective!"—Quoted from "Parergon," published by Mead Johnson & Company, Evansville, Ind. Free copy available to physicians on request.

Verumontanitis
The Application of the Sex Hormones

ROBERT H. AKIN M.D.
OKLAHOMA CITY, OKLAHOMA

It is difficult to anticipate during one's anatomical studies, that the shriveled structure in the floor of the prostatic urethra, the verumontanum, would ever assume much clinical importance. An apprenticeship in cystourethroscopy clears away part of the haze surrounding this "true mountain" of the pioneer anatomists. A further contact with verumontanitis brings forth a great effort to ascertain the etiological factors and formulate a satisfactory and rational plan of treatment.

Although it is usual to find the sexually active adult males are predominantly involved, verumontanitis and hypertrophic veru are sometimes seen in infants and young children. The symptoms may be obstructive to urination or obstructive to the genital glands, or they may be due to irritation only. Young boys who have frequency or urgency of urination, who pull at their genital organs, or who have enuresis, frequently are found to have enlarged or inflamed verus. Adults often have premature ejaculations, crawling or pricking sensations in the penis and perineum, and painful spermatic cords. The pains may radiate to the femoral regions, or may simulate sacroiliac or sciatic pains from resultant seminal vesicle or prostatic congestion. The symptoms may persist for months or years, or recur at frequent intervals.

Acute Neisserian posterior urethritis certainly involves the veru but such a verumontanitis usually subsides quickly unless overtreated or complicated by non-specific organism. In a series of about 400 cases having chronic or recurrent non-specific urethritis, Moor and Brown were able to culturally isolate and type pneumococci in approximately one-third of the cases. These were the most chronic and persistent of the series. The colon bacillus, the streptococcus fecalis, the staphylococcus aureus and albus, and the pyocyaneus were other organisms cultured. Distant primary foci of infection in teeth, tonsils, sinuses, furuncles, hemorrhoids, gall bladder and lungs must have some importance as pneumococci cultured from apical dental abscesses and the urine were found to be the same type. Syphilis and tuberculosis are possible causes. A survey of the upper urinary tract frequently reveals stones, or hydronephroses with infection. It is probable that alcoholic drinks or carbonated drinks produce no more than a transitory irritation unless some of the above infections are present. Congenitally small meatus, or stricture of the urethra produce overdistention of the posterior urethra and are contributory factors.

At first glance it would seem trivial to consider such an obscure and small subject. A decade of listening to the story of the traveling salesman who sat on a centipede from one town to the other, and had had his verumontanum coagulated or fulgurated by urologists in each large city to give some relative relief, convinces one of its importance. Cystic degeneration of the verumontanum would seem to indicate the need for fulguration and granulation of the veru, or justify silver nitrate cauterization. These are not ideal, however, because of the atrophy and scarring which may result. The use of sulfa compounds for these non-specific cases usually affords relief but unless urethral obstructions and upper urinary tract factors are cleared up, recurrence is certain. Formed cysts and marked granulation do not readily clear up solely as a result of the sulfa drug therapy. It is for this reason that I mention estrogens and androgens as therapeutic agents. Since 1937, I have not found it necessary to cauterize or coagulate the veru for cysts or granulations, reserving fulguration for benign papillomata only. Both estrogens and androgens increase the height and thickness of the prostatic urethral mucous membrane. In sufficient doses they may even change this mucosa to transitional type, as demonstrated by experiments on monkeys by Zukerman and others. These changes in the mucosa of the posterior urethra are transitory and usually subside in forty days after the discontinuance of the hormone, at least in the case of estrogens in monkeys. Androgens increase the secretory activity of the prostate and seminal vesicles while the estrogens decrease the secretory activity. In verumontanitis with congested seminal vesicles and prostate, secretory activity is undesirable until the patient and his infection has reached a permissible functional state. Estrogens have, therefore, proven more effective and valuable in the actual treatment of inflamed or enlarged veru than the more actively congesting androgens, and appear to

have produced no harmful effects. Overdosage with estrogens may produce bladder atony so that two to five thousand unit doses once or twice a week have been used for four to eight doses. This has usually been sufficient. We do not give ten thousand units and have not used stilbestrol for this treatment as we have not found it necessary.

In summary, it is necessary to determine and eradicate the etiological infection, correct urethral obstructive or upper urinary tract pathology, and restore the normal posterior urethral mucosa. It is unwise to forget that light tonic massages and hot sitz baths have their place in the treatment, and mild deep instillations of protein silver, or mild merthiolate are also helpful. Estrogens are apparently of considerable value.

A Review of the Management of Late Syphilis

C. P. BONDURANT, M.D.
Professor of Dermatology and Syphilology University of Oklahoma School of Medicine
OKLAHOMA CITY, OKLAHOMA

When the average individual thinks of syphilis he thinks of it as a contagious disease, and this is rightly so. The lay public, as well as physician, is seemingly unaware of the death-dealing qualities of late syphilis. I approach the subject of the management of late syphilis with a profound sense of guilt, feeling that if, as physicians, we fastened our eyes upon the chancre and early course of syphilis, and not upon the fixed pupil, the Charcot joint, or the aneurysmal bulge, and turned our writing and thinking to the chancres and their early sequellae, a few decades might witness the extinction of this infection. To focus the gaze of medicine upon the infectious stage of syphilis, the chancre the secondaries and their recurrences, and to secure their sterilization at the shortest interval is then the first great commandment of current syphilology.

To make a distinction between early and late syphilis, it is necessary to call attention to the fundamental pathology which formulates these stages. As the early stage, which is characterized by a uniformity of distribution of organisms and lesions, begins to fade, the successive recurrent outbreaks become less and less and the periods of quiescence become longer and longer, until the disease presents no tangible evidence of its existence then it is said to have become latent. In other words, no clinical evidence of the disease is present and during this period the full course of the disease is below the clinical horizon. This period of latency may vary from a few months to a lifetime but it is by no means a period of inactivity. It is to be considered a state of balance which is the product of a relative immunity maintained by slow, chronic, inflammatory changes. By this immunity process which begins early in the course of the disease, a large majority of the spirochetes which saturate the body are eliminated. The few that remain are localized in certain tissues and the damage which they are to produce later depends to a great extent upon the site of this localization.

During early latency, recurrent lesions may occur on the surface and require sterilization by treatment, but these are not destructive lesions and are rarely harmful to the patient. Following this part of the latency period the lesions are largely internal, do not contain many organisms, and the relation between these organisms and the tissue is changed. These have acquired the ability to produce destructive lesions and are harmful only to the patient himself. They are characterized by a wide varity of pathological activity, occurring in unpredicable locations with no reference to time, involving almost any structure of the body and impairing its function to any degree from an imperceptible alteration to its complete destruction. The immunological background of the patient, a little understood process, to a great extent is responsible for the degree of this damage. We cannot help but believe that this immunity is to some degree made or altered by the early treatment of the individual. Here it might not be amiss to warn of the complicating factors of recurring late syphilis that might follow the so-called quick treatment of early syphilis now highly recommended and accepted to meet the public fever for speed seen in all war times. The history of syphilis therapy is not without record experience in this respect.

The diagnosis of the late stages of syphilis is often far from simple, and calls for the cooperative endeavor in these diagnostic problems as in no other field of medicine. Syphilis, unlike any other disease, may involve simultaneously many systems of the body. The resulting symptom complex may tax the most experienced. Laboratory methods have been a valuable addition to the clinical

diagnosis of syphilis so masterfully practiced by the older syphilologists, but it is regretable that too many have placed an exaggerated reliance on laboratory methods, and rely exclusively on the laboratory to the neglect of various signs and symptoms of this disease which stand out as leading clues to this infection. There is a tendency to accept blindly the laboratory findings in diagnostic syphilology. To the lay mind a positive blood test means syphilis, and a negative blood test rules it out, and among some medical men this type of diagnosis prevails. We must not forget that in late syphilis in many instances there is positive disease with a negative Wasserman. This percentage has been variously estimated at from 10 to 30 per per cent. There is no substitute in this form of diagnosis for a searching history and a careful and complete physicial examination, supplemented by laboratory findings on both blood and spinal fluid. Our greatest and most dangerous error is to accept as final a negative blood Wasserman.

Once the diagnosis of late syphilis is established we are confronted with the question of therapy, and we are forced to realize that a biological cure is an improbability. Faced with this we ask, "What is then the purpose of treatment?" This is many-fold, with the first aim to afford symptomatic relief. As a rule this is well within reason and fairly easy but the question of relapse has to be reckoned with. To correctly plan the type of therapy necessary, the character of the involvement, the history of previous treatment and the general condition of the individual, all weighed carefully with prolonged treatment in mind, will usually be sufficient. The second aim is the restoration and maintanance of normal anatomy and with this, if possible, the return to normal function. The realization of this, of course, is dependent upon the location, type, and extent of the damaged tissue. When these aims are unattainable, the imperative issue is to stop the pathological progress and to preserve as far as possible a stationary relationship between the disease and the host. The laboratory is of value to us in determining these questions but the serological progress is quite a secondary issue and we must not allow our interest to be focused upon laboratory findings and lose sight of the condition of the patient himself. It has been wisely said that the clinical yardstick is the only measure of success in the management of late syphilis. The amount and type of treatment to be administered can only be determined by careful and complete study of the individual case.

The management of the various types of late syphilis almost demands a special field in each group. Outstanding among these types is the treatment of truly latent syphilis and the importance of this is only realized when we consider the frequency with which it is seen. This is that great group of syphilitics whose infection has lasped into obscurity and is diagnosed only by repeatedly positive serological tests. Most of the cases of syphilis complicated by pregnancy fall in this group, and it has been estimated that one-third of all luetics are truly latent. The prognosis of the latent case which receives proper and prolonged treatment is not discouraging. The purpose of treatment here is to prevent progression, relapse, and infectiousness with final sterilization. It must be recalled that this part of the course of late syphilis is really a slow but gradual inflamatory process which remains below the threshold of clinical perception. The art of practice is many times taxed to secure the complete cooperation of the apparently well individual, but this, however, is usually done when absolute frankness is maintained and simple explanations are made. Usually this type of therapy is begun with heavy metals combined with the intermittent use of the iodides, later to be followed by full courses of the arsenicals if these are tolerated. The relationship of these should be in a ratio of more of the heavy metals with arsenic than is used in early syphilis. The results are about equal whether intermittent or continuous treatment is used. Again the study of the individual case should decide this point. A rule acceptable to most clinicians is a year of continuous treatment followed by a year of intermittent treatment. In the Wasserman fast cases, fever therapy is an excellent addition to the second year's treatment and this is receiving wide acceptance. There is little doubt that fever raises the tolerance of the patient for the spirocheticidal drugs and definitely increases their efficiency. If the general condition of the patient permits. I usually give small doses of arsenicals during the latter part of the fever course, these being given during the elevation of the temperature. The tolerance for these drugs is usually increased by administering them in glucose and saline. I usually follow the course of fever with potassium iodide and arsenic in a short course. It is not uncommon to find the Wassermann reversed in these cases after a prolonged rest.

From a death-dealing standpoint, cardiovascular syphilis undoubtedly has first place. It has been estimated that once syphilitic disease of the heart has been diagnosed, a life expectancy of four years is all that can be promised. Here, as in no other phase of syphilology, the strict individualization of cases is mandatory. The success of our management of this group is dependent upon the acuteness with which the early diagnosis is made. Conservative therapy is the

first rule and the syphilologist should assuredly make use of a free consultation with the internist in this phase of syphilitic management.

Another type of late syphilis of increasing importance is syphilis of the central nervous system. The cellular structure of the central nervous system when considered from the standpoint of its ability to recuperate and recover lost function makes it one of the hardest systems of the body to manage when luetic disease is diagnosed. It has not been long since the syphilitic involvement of the central nervous system was regarded as untreatable except by palliative means. With the newer methods of diagnosis and therapy this structure is seen to yield in a very satisfactory manner and it is not boastful to state that it can be handled by any physician reasonably equipped and sufficiently interested. The advancement in spinal fluid examination and study alone has afforded practical diagnosis with an accuracy which was thought beyond reason a few decades ago. A symptomatic neurosyphilis has come to the front as a diagnosis more and more in the last few decades and constitutes that phase of neurosyphilis where the spinal fluid abnormalities are present with the absence of clinical evidence. The accepted practice of routine spinal fluid examinations in all late syphilis cases has served well in the management of this phase of the disease. The importance of this procedure is further demanded by the fact that abnormalities of the spinal fluid precede by years the appearance of clinical damage and the patient is indeed fortunate who has this information available for the doctor charged with his care. On the other hand, the doctor who manages a case of late syphilis without this information should be ashamed.

Once the central nervous system is involved to a degree sufficient to present a clinical phase, definite types may be recognized. Many more or less elaborate divisions of these have been outlined, but a simple and practical one is as follows: the interstitial type which involves the supportive structures of the brain and spinal cord and the parenchymatous which represents the involvement of the true nervous tissue. It must be understood that both of these can be present in the same case. Of the latter group, the two great divisions are the tabetic and paretic forms, each having its own chain of symptoms and serological formula.

The management and observation of these various types of neurosyphilis form one of the most fascinating chapters in all medical therapeutics. The first thought after clinical and laboratory evidence is obtained is the strict individualization of cases. When we ask what is the management of this type of neurosphilis we should ask what is the management of this case of neurosyphilis. The early management of asymptomatic neurosyphilis is little different from the routine treatment of uncomplicated cases. When the damage has advanced to a degree of moderate abnormalities, the plan is intensified, and the titre of the fluid Wassermann is used as the guide. When the improvement is slow either from the clinical or laboratory angle, a course of tryparsamide is added with the usual precautions, and with the more resistant cases, fever therapy is used. I know of no procedure that pays the dividends of fever therapy in early central nervous system cases.

The diffuse meningovascular cases present such a variety of clinical pictures that it makes it difficult to outline more than a generalized type of management. The lesions are primarily inflammatory rather than degenerative, but soon become degenerative and their management is usually successful when carried out in the regular routine manner. Arsenicals are not to be feared as much in this type as they once were.

When the definite paretic and tabetic formulae are encountered it has been the experience that routine treatment does not produce desired results and to use valuable time for its employment is not permissible. This is not neglected but fever therapy is started at once. Due to the speed with which these lesions progress, and their very destructive nature, the element of time assumes a great importance. The type of fever used in these cases is usually from malaria or typhoid vaccine. The hypertherm, or electric heat box, is effective but hazardous, and its popularity is seemingly on the wane. The old procedure of spinal drainage has been found to be of little benefit and has been abandoned as a method of therapy. The prognosis in central nervous system involvement is entirely dependent upon the type and amount of destruction produced and the general condition of the patient. As in all debilitating disease, rest and general care are of utmost importance. I have made extensive use of typhoid vaccine in the routine care of these cases and find it on a par with malaria in producing fever, and from a prognostic standpoint.

When the treatment of the neurosyphilitic is terminated the responsibility of the physician is not ended. He must remember that in all syphilis, relapse is the rule and the patient's only safeguard against recurrence is post-treatment observation, both from the clinical and laboratory standpoint. Much responsibility of a medical and sociological nature is associated with the care of the syphilitic and there is no doubt that the successful therapist is the one who can correctly correlate these many factors, interpreted and adjusted to the needs of the individual case.

There's no rule about the length of a war, and no telling how great the sacrifices needed to win it. All we know is that it *must be won.*

We hope and pray that the *next* generation will be spared—that our lads of fourteen and fifteen are destined for something else but the horrors of war and the fields of battle.

We hope that we, of this generation, may transmit to the next generation a world in which ruthless savagery and killing have ceased . . . a world in which they may live and work in peace.

America must not lose this war—*dare* not lose it! We must win as *quickly* and completely as possible. If we win in time, hundreds of thousands of lives will be saved, and the youths of today will build the greater America of tomorrow.

It takes *money* to provide our fighting men with planes, tanks, guns and ships—tens of billions of dollars. It takes *War Bond* money—from you, and you, and you—regularly—every payday—10% of your income, at least—more, if you can.

Your Government will give you back $4 in 10 years for every $3 you invest now—$25 for each $18.75 Bond you buy. And your investment is backed and guaranteed by all the strength of the world's most powerful nation. The better we arm our *men,* the more lives of our *boys* will be spared, and the sooner will their future be assured.

Knowing this to be true—knowing that War Bonds will help save our country—the lives of our fighting men—yes, even the lives of those who are mere boys now . . .

Can you possibly *not* put every dollar you can scrape together into War Bonds?

FACTS ABOUT WAR BONDS

1. War Bonds cost $18.75 for which you receive $25 in 10 years—or $4 for every $3.
2. War Bonds are the world's *safest* investment — guaranteed by the United States Government.
3. War Bonds can be made out in 1 name or 2, as co-owners.
4. War Bonds *cannot* go down in value. If they are lost, the Government will issue new ones.
5. War Bonds can be cashed in, in case of necessity, after 60 days.
6. War Bonds begin to pay interest after 1½ years.

Keep on Buying War Bonds

PUBLISHED IN COOPERATION WITH THE DRUG, COSMETIC AND ALLIED INDUSTRIES BY

LEDERLE LABORATORIES, INC., NEW YORK, N. Y. — A UNIT OF AMERICAN CYANAMID COMPANY

• THE PRESIDENT'S PAGE •

CARELESS WORDS

There is a poster on display about the State depicting a dead sailor lying in shallow water. The caption is, "A Careless Word—A Needless Loss".

Robert Hudson, a distinguished attorney, several years ago addressed the Oklahoma Presidents and Secretaries Meeting and spoke very frankly from a long professional experience. He stated that most malpractice suits originate in "another doctor's office". A careless word!

The greatest cement ever poured binds together the bricks and stones that compose great buildings where physicians and dentists office. Here they have to meet in elevators, in coffee shops and drug stores, and they have to speak. They gradually get acquainted and finally learn that the other fellow is not as bad as had been thought—"he's just another man trying to make a living".

And there is a human cement too. The Woman's Auxiliary performs a service in professional relationships of unobtrusive, but enormous value. When Mrs. Jones speaks to Doctor Jones about Doctor Smith's charming wife she met today at the Auxiliary Meeting, it sets Doctor Jones to thinking about Doctor Smith in an altered light. The Old Testament is wrong—it should read "the way of a maid with a man". The writers of old were not acquainted with the captivating guile with which the modern doctor's wife influences the medical profession—for its own good.

Is there a Woman's Auxiliary in your County or in your District—there should be.

James A. Stevenson

President.

Antirabic Vaccine

SEMPLE METHOD

U. S. Government License No. 98

1. Patients bitten by suspected rabid animals, on any part of body other than Face and Wrist, usually require only 14 doses of Antirabic Vaccine.

Ampoule Package.....$15.00

2. Patients bitten about Face or Wrist, or when treatment has been delayed, should receive at least 21 doses of Antirabic Vaccine. (Special instructions with each treatment.)

Ampoule Package.....$22.50

Special Discounts to Doctors, Druggists, Hospitals and to County Health Officers for Indigent Cases.

ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Pharmacy and Chemistry

Medical Arts Laboratory

1115 Medical Arts Building
Oklahoma City, Oklahoma

The JOURNAL Of The
OKLAHOMA STATE MEDICAL ASSOCIATION

EDITORIAL BOARD

L. J. MOORMAN, Oklahoma City, Editor-in-Chief

E. EUGENE RICE, Shawnee NED R. SMITH, Tulsa

MR. R. H. GRAHAM, Oklahoma City, Business Manager

CONTRIBUTIONS: Articles accepted by this Journal for publication including those read at the annual meetings of the State Association are the sole property of this Journal.

The Editorial Department is not responsible for the opinions expressed in the original articles of contributors.

Manuscripts may be withdrawn by authors for publication elsewhere only upon the approval of the Editorial Board.

MANUSCRIPTS: Manuscripts should be typewritten, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space. Bibliography listing should follow this order: Name of author, title of article, name of periodical with volume, page and date of publication.

Manuscripts are accepted subject to the usual editorial revisions and with the understanding that they have not been published elsewhere.

NEWS: Local news of interest to the medical profession, changes of address, births, deaths and weddings will be gratefully received.

ADVERTISING: Advertising of articles, drugs or compounds unapproved by the Council on Pharmacy of the A.M.A. will not be accepted. Advertising rates will be supplied on application.

It is suggested that members of the State Association patronize our advertisers in preference to others.

SUBSCRIPTIONS: Failure to receive The Journal should call for immediate notification.

REPRINTS: Reprints of original articles will be supplied at actual cost provided request for them is attached to manuscripts or made in sufficient time before publication. Checks for reprints should be made payable to Industrial Printing Company, Oklahoma City.

Address all communications to THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, 210 Plaza Court, Oklahoma City. (3)

OFFICIAL PUBLICATION OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

Copyrighted September, 1943

EDITORIALS

SCIENCE HAS ITS LIMITATIONS

The following from Lin Yutang's latest book, "Between Tears and Laughter" is well worth quoting:

"For it must never be forgotten that even in the realm of the physical world, science explains the *how*, but never the *why* and the *wherefore*. It deals with the process, but not the ultimate cause, nor the values of the end results. The process lies within the field of mathematics, the values and primary cause lie without. Science explains how the atoms behave, but does not explain why they so behave. It describes how two molecules of sodium and carbon comes together, but does not explain why they must come together. It describes acids and alkalis, but cannot say anything about the ultimate acidity of acids. It proves that quinine cures malaria, but does not know why quinine kills the malaria germs. It describes to you the laws of gravitation, but does not pretend to tell you what gravitation is, and why it must be. Before the ultimate Door of Mystery, science always stops short and never enters. It sees acorns sprout and grow oaks, but cannot tell why they must do so. It observes and proves the survival of the fittest, but cannot account for the arrival of the fittest. It explains how the giraffe survives by his long neck but cannot explain the chemical and physiological process that produced the first long neck. It tells of the survival value of the spotted leopard, but is at a loss about the arrival of the spots. It explains the survival value of the flower's fragrance, but is bashfully silent as to how lilacs and lemons develop their peculiar fragrance. It tells you that silkworms spin silk from mulberry leaves and bees produce honey from nectar and cows produce milk from common grass, and not much else is really enlightening. For ultimately, bees just produce honey and cows just produce milk and lilacs just create out of the common sod that unmistakable, incomparable perfume. And they all do it simply, finally, and inevitably."

Medical science alone may cure disease but the patient needs that intangible something which only art can supply, which only God can reason why and which only bureaucracy can cause to die. Again we quote from Yutang:

"There is more truth, kindness, heroism, romance, humor, pathos, more depth and richness of life in a country doctor's office than in the Foreign Office of any nation;

and it is of this truth, heroism, romance, and humor and pathos that the stuff of life is made, and by which the stream of human life is carried on."

Though eager to direct it, bureaucrats do not know the meaning of medical science, therefore, they stand ready to plunge headlong through "the ultimate Door of Mystery." Unfortunately, they are planning to drag millions of innocent people in after them.

MEDICAL PRESCIENCE

Let it be a matter of record that doctors who fear socialized medicine in any form are not selfishly reminiscent but as Walter Pater once said, "prescient of the future". Let the politician who would force the issue look upon the record and be prepared for the consequences.

The far-seeing doctors do not claim omniscience but experience has taught them that those who bow to bureaucracy and spend valuable time filling blanks in triplicate do not climb mountains, ford streams and brave storms to save the sick. Let doctors remember that it requires more fortitude to maintain freedom than to accept tyranny.

As a profession, we are at war, fighting for the one and only freedom worth having —the freedom to oppose everything that robs us of individuality in our service to humanity.

We know that medicine is a vital living science with evolutionary ends and that it should not be "rough hewn" by revolutionary trends.

THE PRIMARY ATYPICAL PNEUMONIAS

For the comfort of conscientious clinicians who covet concise bedside knowledge, attention is called to the fact that exhaustive etiologic and epidemiologic studies, including serologic and immunologic experiments have not contributed any definite etiologic or diagnostic data on the primary atypical, or so-called virus pneumonias.

For a current authoritative discussion on this subject, the reader is referred to a report of the investigation of John H. Dingle and his coworkers in a recent issue of War Medicine.[1] The authors present a detailed account of their clinical observations including x-ray findings and a carefully tabulated account of their laboratory investigations. The clinical aspects as reported by these anthors constitute one of the best bedside pictures of this relatively new malady, now available in medical literature. This clinical picture also contains a comprehensive discussion of the x-ray findings which is very helpful. The discussion of symptomatology is based chiefly upon the study of 69 cases which were carefully observed for this specific purpose. For the complete study, 216 cases were abstracted from hospital records, making a total of 285 cases. A comparison of these two groups failed to show any striking variations in symptomatology, course of the disease, or x-ray findings. The following paragraph under the title "General Description" is so succinctly comprehensive, it is quoted in full: "The characteristics of atypical pneumonia were those of a mild to moderately severe illness of gradual onset in which constitutional symptoms predominated over symptoms referable to the respiratory tract in the early stages. Physical signs of involvement of the lungs were ordinarily minimal, although evidence of pulmonary infiltration was seen on roentgen examination. The illness persisted for five to fourteen days and was not influenced by chemotherapy. Complications were extremely rare, and the prognosis was excellent."

Recent editorials in The New England Journal of Medicine[2] call attention to the fact that in all probability there are many forms of the virus pneumonias with a varied etiology. In the June 10, 1943 number,[3] there is editorial reference to a "simple clinical laboratory test that may serve to distinquish some of the cases of virus pneumonia." The promise of such a test resides in the findings of cold agglutinins in many cases of this disease during the past months." However, the editorial closes with the admission that it may prove a "means of distinguishing (only) one of the many forms of virus pneumonias."

Also worthy of note, is the fact that Favour[4] has reported three cases of atypical pneumonia which he was able to identify as probably ornithosis (psittacosis) by the compliment fixation test. Favour urges the careful questioning of patients with atypical pneumonia about contact with birds known to harbor the virus. In each of the cases reported, there was a history of contact with such birds.

Additional comfort may be found in the following reflections upon the pneumonias from Henry A. Christian[5]: "Reading between the lines of the reporters of groups of these patients, the author of this volume senses in them the same sensations that he had in 1918 when suddenly confronted with numerous patients with respiratory disease that he never before had seen, the feeling that he was dealing with a disease new to him, and which must compare speedily with descriptions of past observers. To them came the conclusion that a new respiratory disease had appeared. The experience of 1918, com-

pared with that of the present, leaves this author with the feeling that the clinical descriptions of today agree with those he made of many cases in 1918, although the pathological lesions in the few fatal cases and the etiology and period between contact and onset of the present disease differ; all of this suggests to him that clinically this new disease is a variant of the 1918 influenza, capable, were it to assume pandemic proportions, of clinical identity with pandemic influenza."

1. Dingle, J. H., Abernethy, T. J., Badger, G. F., Buddingh, G. J., Feller, A. E., Langmuir, A. D., Ruegsegger, J. M., Wood, W. B. Jr.: War Medicine, Vol. 3, No. 3, p. 226. March, 1943

2. The New England Journal of Medicine. Vol. 228, No. 22, p. 729. June 3, 1943.

3. The New England Journal of Medicine. Vol. 228, No. 23, p. 770. June 10, 1943.

4. Favour, C. B.: Ornithosis (Psittacosis) Report of Three Cases and Historical, Clinical and Laboratory Comparision with Human Atypical (Virus) Pneumonia. American Journal Medical Sciences. Vol. 205, No. 162. February, 1943.

5. Christian, H. A.: Osler's Principles and Practice of Medicine. Fourteenth Edition. pp. 303.

THE OKLAHOMA CITY CLINICAL SOCIETY

The war goes on and Procurement and Assignment calls for more doctors. Civilian medical needs surge about the veterans who are left at home with increasing demands which must be met, not only with courage and fortitude but with skillful dispatch.

The Annual Meeting of the Oklahoma City Clinical Society is going on according to schedule in order that every doctor on the home front may have refresher courses designed not only to polish off the time tried methods, but to add the accumulating accessories in medical science which should help expedite practice with a saving of time and energy . . . and perhaps added preservation of health and extension of life. This opportunity for the acquisition of knowledge and increased efficiency should not be overlooked, especially as it is literally brought to our doorstep.

Since we are so few and must do so much for so many, let us cultivate increased speed and efficiency by earnestly pursuing the "know how".

Speaking of Books

From the writing of Plato we may gather many details about the status of physicians in his time. It is very evident that the profession was far advanced and had been progressively developed for a long period before Hippocrates, whom we erroneously, yet with a certain propriety, call the Father of Medicine. The little by-play between Socrates and Euthydemus suggests an advanced condition of medical literature: "Of course, you who have so many books are going in for being a doctor," says Socrates, and then he adds, "there are so many books on medicine, you know." As Dyer remarks, whatever the quality of these books may have been, their number must have been great to give point to this chaff.—Aequanimitas with Other Addresses. Sir William Osler. 3rd Edition.

Lain-Eastland-Lamb Clinic

Dermatology, Syphilology, Radium and X-Ray Therapy

Everett S. Lain, M.D. Wm. E. Eastland, M.D.

John H. Lamb, M.D.

Medical Arts Building

Oklahoma City, Oklahoma

The Accurate Diagnosis and Prescribing of Pharmaceuticals Is The Physician's Responsibility.

The Accurate Manufacturing and Standardizing of Pharmaceuticals Is Our Responsibility.

We Have Supplied The Profession With *Ethical Products* For More Than 40 Years.

"We Appreciate Your Preference"

FIRST TEXAS CHEMICAL MFG. CO.

Dallas, Texas

ASSOCIATION ACTIVITIES

13th ANNUAL MEETING OKLAHOMA CITY CLINICAL SOCIETY OCTOBER 18-19-20 and 21

The 13th annual and second war time meeting of the Oklahoma City Clinical Society will be held in Oklahoma City, October 18, 19, 20 and 21 at the Biltmore Hotel.

Guest Speakers for the 1943 conference are of the same outstanding stature in the field of medicine as those of previous meetings, according to Dr. J. H. Robinson, President of the Society.

Out-of-city physicians who will appear on the program and their specialty fields are as follows:

Dr. A. H. Aaron, Professor of Clinical Medicine, University of Buffalo.

Dr. Vilray Papin Blair, Professor Emeritus of Clinical Surgery, and Professor Emeritus of Oral Surgery, Washington University School of Medicine.

Dr. Louis A. Buie, Professor of Surgery, University of Minnesota, Mayo Foundation.

Dr. Leroy A. Calkins, Professor of Obstetrics and Gynecology, University of Kansas School of Medicine.

Dr. Theodore J. Dimitry, Director, Department of Ophthalmology and Professor of Ophthalmology, Louisiana State University, Professor of Special Anatomy, Loyola University.

Franklin G. Ebaugh, Colonel, Medical Corps, A.U.S. Professor of Psychiatry and Director, Colorado Psychopathic Hospital.

Dr. George B. Eusterman, Professor of Medicine, University of Minnesota, Mayo Foundation.

Dr. Charles Brenton Huggins, Professor of Surgery, University of Chicago.

Dr. Clinton W. Lane, Instructor of Dermatology, Washington University School of Medicine.

Dr. Harry E. Mock, Associate Professor of Surgery, Northwestern University School of Medicine.

Dr. Thomas G. Orr, Professor of Surgery and Head of Department, University of Kansas School of Medicine.

Dr. Louis E. Phaneuf, Professor of Gynecology, Tufts College Medical School.

Dr. Robert D. Schrock, Professor of Orthopedic Surgery, University of Nebraska School of Medicine.

Dr. John A. Toomey, Professor of Clinical Pediatrics and Contagious Diseases, Western Reserve University School of Medicine.

Dr. W. Likely Simpson, Professor of Otolaryngology, and Head of Department, University of Tennessee.

Dr. Charles T. Way, Assistant Clinical Professor of Medicine, Western Reserve University School of Medicine.

Dr. Grayson L. Carroll, Urology, St. Louis University School of Medicine.

Outside activities such as the Annual Smoker are to be held in conjunction with the meeting and the Auxiliary is planning interesting entertainment for the ladies.

Dr. J. W. Amesse, Vice-President, American Medical Association, Denver, Colorado, will be the guest speaker for the Monday night dinner.

The Clinical Society as the Annual State Meeting, provides an excellent opportunity for medical refresher courses and the Clinical Society should have the support of the profession of the entire state.

All physicians who are planning on attending the meeting should make hotel reservations as soon as possible.

ASSOCIATION TO ASSIST O.P.A. ON FOOD RATIONING PROGRAM

Through the office of Mr. Paul Frost, Associate Food Rationing Officer for the Office of Price Administration has come a request that the Association assist the O.P.A. in the proper administration of the food rationing program as it pertains to the issuing of additional food stamps for special diets.

This particular phase of the food program has from the beginning been misunderstood by both the public and the medical profession and as a result there has been improper use of the regulations.

Dr. James Stevenson, President, has referred the request to the Committee on Public Health with the instructions that Dr. Carroll Pounders, Oklahoma City, Chairman, appoint his own advisory committee.

As soon as the Public Health Committee makes its recommendations they will be sent to the local rationing boards for the guidance of the board members. The recommendations will be published in the Journal.

Physicians should at all times bear in mind that the food rationing program is an intricate part of the war effort and any unnecessary dispensation of food is giving aid and comfort to the enemy—and who wants to help Hitler and Tojo?

Be certain that your patient cannot obtain his necessary special diet in some other manner than through rationed foods.

MILITARY SURGEONS MEETING October 21, 22 and 23

Rear Admiral Ross T. McIntire, Surgeon General of the United States Navy, and personal physician to President Roosevelt, will serve as honorary chairman for the 51st annual convention of the Association of Military Surgeons of the United States to be held in Philadelphia October 21, 22 and 23.

The announcement was made by Captain Joseph A. Biello, District Medical Officer of the Fourth Naval District, who will act as general chairman for the meeting. The Vice-chairman will be Brigadier General F. Lull, attached to the Medical Corps of the Army, and Commander Edward L. Bortz of the United States Naval Reserve Medical Corps.

The symposium on war medicine will be of vital and direct interest to the health and welfare of the men in the armed forces, to physicians, research specialists and scientists everywhere, as well as to the general public. It is expected that the meeting will bring 2,000 doctors, many of whom have been in active combat, with servicemen in every camp and base throughout the country and on all the fighting fronts.

The announcement of the plans for the convention of military surgeons was made today by Rear Admiral William L. Mann, M. C., of Seattle, Washington, president of the Association of Military Surgeons.

"It is especially appropriate that Philadelphia should furnish the setting for this most important meeting. Philadelphia has long been recognized as the first city of medicine and has made enormous contributions to the advance of medical science. Then, too, it is the birthplace of American freedom, which our military surgeons are now helping our fighting men maintain in this struggle for the survival of democracy throughout the world," Rear Admiral Mann said.

Rear Admiral Richard H. Laning will head the executive committee for the convention, one of the most important over held by the military services of the United States.

Serving with Rear Admiral Laning on the Executive Committee are: Dr. George Morris Piersol, Dr. Staney P. Reimann, Dr. Gilson Colby Engel, Commander J. R. Tinney, United States Naval Reserve; Major F. D. Creedon, United States Army; and Captain J. R. Kitchell, United States Army retired.

The meeting will be of magnitude and scope never before known in the history of the organization, according to Rear Admiral Mann. Medical officers of the armed forces who have seen actual duties in the various combat zones will report first hand on the United States medical services under combat in climatic conditions new to American arms.

Medicine's methods of meeting the new and complicating factors brought on by mechanized modern warfare will also highlight the sessions. There will be reports and discussions on such new matters as air evacuation, parachute injuries, the physiological aspects of high altitude flying and dive bombing, tropical medicine, blast injuries, amphibious operations, submarine warfare, immersion and temperature extremes, neurosurgical problems and the whole field of rehabilitation.

The military surgeons meeting will be opened with addresses of welcome by Governor Edward Martin, of Pennsylvania, and Major Bernard Samuel of Philadelphia. At the initial evening session, to be known as "Army Night", the President will deliver his greetinugs to the convention via radio. There will be addresses by the Chinese Ambassador, Wei Tao-Ming, and by Surgeon General Norman T. Kirk, of the United States Navy.

At the following night's session, which will be known as "Navy Night," the principal speaker will be the Hon. Frank Knox, Secretary of the Navy. The presiding officer will be Rear Admiral Ross T. McIntyre, surgeon general of the United States Navy and personal physician to the President.

Nationwide hook-ups will carry reports of the meeting to the public at large and by short-wave broadcast to the people in Allied countries, who will be apprised of the progress of the convention and its meaning to the men in arms and national health in general.

The convention, with its score of exhibits and meetings, will occupy all available floor space in the Bellevue-Stratford during its stay here. The program will list, besides general sessions, a series of forum lectures and teaching panels, as well as a great number of film showings.

PREPAID SURGICAL PLAN TO ATTORNEYS

Dr. John F. Burton, Oklahoma City, Chairman of the Prepaid Medical and Surgical Plans Committee, announced that the preliminary draft of a prepaid surgical plan has gone to the legal firm of Emery, Johnson, Crowe and Tolbert for analysis and legal interpretation.

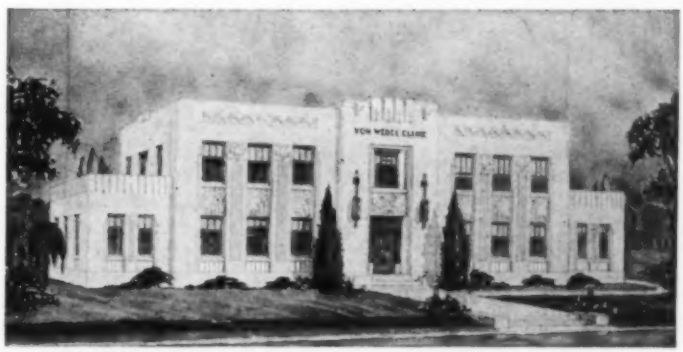
The plan, which will later be submitted to the County Societies for approval before being offered for enrolment to the lay public in the respective counties, has been prepared from a study of similar plans in operation by other Medical Associations.

The House of Delegates, in instructing the Committee to proceed in the formation of a prepaid plan, while not anticipating the introduction of the Wagner-Murray-Dingell health bill in Congress, nevertheless made possible a combative instrument for the medical profession.

A recent analysis by "Blue Cross" of its first 5,000 hospitalized cases over the entire State, gives an interesting insight to the number of surgical cases that would have been handled through a prepaid plan had one existed at the beginning of "Blue Cross". Of the first 5,000 cases, 2,112 were surgical. The following are their diagnostic divisions:

Infectious diseases	4
Rheumatoid diseases	4
Cancer	3
Tumor and Cyst-benign	129
Fibroid uterus	53

VON WEDEL CLINIC



PLASTIC and GENERAL SURGERY
Dr. Curt von Wedel

TRAUMATIC and INDUSTRIAL SURGERY
Dr. Clarence A. Gallagher

INTERNAL MEDICINE and DIAGNOSIS
Dr. Harry A. Daniels

Special attention to cardiac and gastro intestinal diseases

Complete laboratory and X-ray facilities. Electrocardiograph.

610 Northwest Ninth Street
Opposite St. Anthony's Hospital
Oklahoma City

Other female disorders	114
Goiter	9
Other Glandular disorders	11
Nutritious diseases	1
Ulcer of the stomach of duodenum	10
Other digestive disorders	10
Appendicitis	433
Gall Bladder	18
Hernia	62
Kidneys and ureters	35
Disease of the prostate	9
Disease of the bladder	7
Rectal disorders	128
Diseases of external genitals	5
Disease of the heart	2
Diseases of the blood vessels	4
Respiratory diseases	9
Diseases of the nervous system	1
Diseases of the eye	13
Diseases of the ear	11
Tonsillitis	811
Full term pregnancy	21
Obstetrics	26
Diseases of the bone	16
Burns	2
Injuries due to the accident	67
Poisonings	2
Diseases of the skin	18
Hemorrhages	12
Dental disorders	10
Unknown	9
Miscellaneous	33
Total	2112

Announcement of the completed plan will be made as soon as possible.

WE NEED HELP

The Executive Office is attempting to secure pictures of all the past-presidents and has been unable to obtain pictures of the following:

R. D. Love, M.D., Perry and
R. H. Tullis, M.D., Lawton .

Anyone having information that might be of benifit in finding pictures of these physicians is requested to immediately write the Executive Office.

FOURTH ANNUAL SECRETARIES CONFERENCE OKLAHOMA CITY, OCTOBER 17, 1943

Dr. A. R. Suggs, Ada, Chairman of the Annual Secretaries Conference, has selected October 17 as the date for the 4th Annual Meeting which will be held in Oklahoma City at the Biltmore Hotel.

The meeting this year will not have a morning session but will have the customary afternoon and evening program with a complimentary dinner.

In addition to the County Secretaries, there will be in attendance the County Chairman of the Procurement and Assignment Service, as a part of the program will be dovoted to the profession's participation in the war effort.

Dr. James Stevenson, President of the Association, is also calling a meeting of the Council for the morning of October 17 and anyone desiring to bring any business to the attention of the Council should notify the Executive Officer as soon as possible.

The program of the meeting will include many of the following current topics: Public policy in relation to the Wagner-Murray Health bill (Senate 1161): Report from the Committee on Prepaid Surgical Plan; Maternity and Infancy Program for the families of enlisted men; Farm Security Administration and "Blue Cross Plan"; Procurement and Assignment Service and Post War Planning for returning physicians.

Representatives of the Army and Navy Offices of Officers Procurement will be available to answer questions concerning commissions in the respective medical branches.

The suggestion is made that anyone planning on staying over for the Oklahoma City Clinical Society should make reservations at the hotel as soon as possible.

The Coyne Campbell Sanitarium, Inc.

Oklahoma City, Oklahoma

Established in 1939

for treatment of

Nervous and Mental Disorders

Coyne H. Campbell, M.D., F.A.C.P.

Charles E. Leonard, B.S., M.D.

Muriel E. Hyroop, M.D.

*Charles A. Smith, M.D.

Aleen Bittner, R. N., Supervisor

Jerry Brown, R.N., Night Supervisor

Jessie Bent, Business Manager

*Jack Barthold

(**Now Serving In Armed Forces*)

UNIVERSITY HOSPITAL EVACUATION UNIT AT PORT OF EMBARKATION

Word has been received that the Army Hospital Evacuation Unit organized from the staff of the University of Oklahoma School of Medicine has been sent to a port of embarkation and will soon be on duty on a foreign front.

The unit is commanded by Colonel Rex Bolend, Oklahoma City, with the fololwing staff of doctors: F. M. Adams, Jr., D. R. Bedford, Austin H. Bell, S. E. Franklin (*Broken Arrow*), Allen G. Gibbs, J. A. Graham, Jesse D. Herrmann, George H. Kimball, John F. Kuhn, Jr., Cecil W. Lemon, R. H. Lindsey (*Pauls Valley*), Paul B. Lingenfelter (*Clinton*), Bert E. Mulvey, Everett B. Neff, Floyd S. Newman (*Shattuck*), Robert L. Noell, D. B. Pearson, R. J. Reichert, Harvey M. Rickey, W. W. Rucks, Jr., Chester R. Seba, Evans E. Talley (*Enid*), James M. Taylor and John P. Wolff. (Note: *all are from Oklahoma City unless otherwise indicated*).

There is no doubt that this group of Oklahoma physicians will earn for themselves and the State of Oklahoma the same praise for efficiency and resoluteness as has been gained by the 45th Division and the other Oklahoma physicians who are serving in the armed forces.

COUNTY NEWS

The Washington-Nowata County Medical Society has set up the following program for 1943-44. The Society is to be highly complimented on the handling of its future meetings.

Program 1943

September 8
Vacation Talks
Affections of the Myocardium—Dr. Thomas Wells.
Discussion—Dr. F. C. Rewerts.
October 13
Some Common Eye Infections—Dr. O. I. Green.
Discussion—Dr. J. E. Crawford.
Infections of the Hand, Surgical Treatment of—Dr. H. G. Crawford.
Discussion—Dr. H. C. Weber.
November 10
Talk on Harvard Postgraduate Course—Dr. J. P. Vansant.
Poliomyelitis Anterior—Dr. E. M. Chamberlin.
Discussion—Dr. W. H. Shipman.
December 8
Prematurity—Dr. S. A. Lang.
Discussion—Dr. K. D. Davis.
Some Diseases We May Expect After This War—Dr. E. E. Beechwood.
Discussion—Dr. S. G. Weber.
Election of Officers.

Program 1944

January 12
Annual Banquet.
February 9
Some Medical Problems the Result of Aviation—Dr. R. C. Gentry.
Discussion—Dr. S. G. Weber.
Eclampsia—Dr. J. G. Smith.
Discussion—Dr. W. H. Shipman.
March 8
Purpura Hemorrhagica—Dr. L. D. Hudson.
Discussion—Dr. W. H. Shipman
Peptic Ulcer—Dr. B. F. Staver.
Discussion—Dr. G. V. Dorsheimer.
April 12
Otitis Media—Dr. J. E. Crawford.
Discussion—Dr. O. I. Green.
Treatment of Severe Burns—Dr. H. C. Weber.
Discussion—Dr. J. P. Vansant.
May 10
Open Meeting.

FOR supplying Mercurochrome and other drugs, diagnostic solutions and testing equipment required by the Armed Forces, for developing and producing Sterile Shaker Packages of Crystalline Sulfanilamide especially designed to meet military needs, and for completing deliveries ahead of contract schedule—these are the reasons for the Army-Navy "E" Award to our organization.

The effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use.

For the convenience of physicians Mercurochrome is supplied in four forms—Aqueous Solution for the treatment of wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

Mercurochrome (H. W. & D Brand of dibrom-oxy-mercuri-fluorescein-sodium) is economical because stock solutions may be dispensed quickly and at low cost by the physician or in the dispensary. Stock solutions keep indefinitely. Literature furnished to physicians on request.

HYNSON, WESTCOTT & DUNNING, INC.
BALTIMORE, MARYLAND

★ FIGHTIN' TALK ★

The following promotion has been reported: from Major to Lieutenant Colonel—*Bernard Eugene Bullock*, Clinton.

Lt. Colonel Lee K. Emenhiser, Oklahoma City, and *Major Ed McKay*, formerly of Oklahoma City, collaborated on the following news from their station at Ft. Sam Houston, Texas. Lt. Colonel Emenhiser writes as follows:

"Will write some news from my neck of the woods down here. I am Chief of the Eye, Ear, Nose and Throat Department and several Oklahoma City boys are working with me in their specialties; namely *Major Paul J. Carden* of El Reno and *Major Ed McKay*, previously of Oklahoma City, but who was practicing at Texarkana before coming into the army. *Major J. B. Snow* is the Chief of Pediatrics and is just a few doors down the hall from me. *Major Clyde Kernek*, who was practicing at Holdenville before coming into the army is our Hospital Inspector and his office is just across the hall from me. So, you see, there is a good bunch of "Okies" working here under the same roof in one of the greatest, if not the greatest Army Hospital in the country.

"I saw *Lt. Colonel Bob Lowry*, formerly of Poteau and he is now Commanding Officer of the Station Hospital at Brooks Field and working with him is *Captain Frank Joyce* and *Captain Gingles* of Oklahoma. *Lt. Colonel William D. Anderson*, formerly practicing at Claremore dropped by to see me the other day and he is the Commanding Officer of the Station Hospital at Victoria, Texas. *Major Polk Frye*, formerly practicing at Frederick, is now the Commanding Officer of the Station Hospital at San Angelo, Texas. *Captain Bob Roberts*, formerly practicing at Stillwater is stationed here at Ft. Sam Houston, Texas with the First Auxiliary Surgical Group. *Major LeRoy Sadler* came by inspecting us from the Eighth Servcie Command at Dallas, Texas.

From the Branch School of Aviation Medicine at Nashville, Tennessee, comes the word that *Captain Roy L. Neel* is completing the course for Flight Surgeon of the Army Air Corps. Other Sooners stationed at Nashville are *Lt. Colonel Rayburn*, formerly of Norman and *Captain George Dodson*, graduate of the Oklahoma School of Medicine in 1940. Captain Dodson was sent back from Hawaii to take the course for Flight Surgeon.

Colonel Wallace N. Davidson, Cushing, has just received our first news letter and has written to us from ————. Colonel Davidson says that he is in command of a rather large hospital unit there and it is his opinion that he has some of the best surgical and medical personnel that it is possible to obtain and that they are doing splendid work and a lot of it.

Lt. E. D. Greenberger, McAlester, is busy with manœuvers after a few days vacation which included a little fishing and some swimming "a la natural". Before reporting for maneuvers, Lt. Greenberger was stationed at Camp Atterbury, Indiana.

By V-Mail we hear from *Lt. Logan A. Spann*, formerly of Tulsa. He says that he missed the first State Meeting since 1936, but has plenty to do in a Medical Company in operation in ———— and is doing surgery to his heart's content.

Major Glen W. McDonald, formerly of the State Health Department stationed in Pontotoc County, reports that since last November he has been assigned in Boston at Headquarters, First Service Command as Veneral Disease Officer for that area. He covers the six New England States in his travels but as yet has seen nothing that looks as good as old Oklahoma.

Lt. James D. Martin, Cushing, is now stationed at the Office of the Post Surgeon, Ft. Sam Houston, Texas. Lt. Martin entered the Service on September 23, 1942 and was first attached to a pool of medical officers at Ft. Sam Houston and later was assigned to his present post. He reports that the work there is similar to an office practice as far as the "sick calls" are concerned with the addition of a number of outside activities including a civilian dispensary for first aid to industrial accidents and many other allied duties.

Society Note

We are glad to note, by the following report, that the social season has been officially opened in ————. Sorry that there was no enclosure of pictures with which to enhance the report.

"On Friday, August 13, *Dr. "Pat" Nagle* (*Oklahoma City*) (of the Surgical Facility Nagles) entertained *Dr. D. G. Willard* of Norman and Drs. *Bill Klein* and *James H. Melvin* of Oklahoma City.

"Dr. Nagle's lean-to was attractively decorated with luscious Polynesian pin-ups (*Note:???*) and assorted enemy ampoules. Dr. Nagle was coyly clad in khaki shorts and operating cap. Guests were uniformly dressed in herring-bone twill, the latest creation for evening dugout wear.

"Dr. Nagle also furnished the evening's special entertainment, rendering 'The Guillotine' by B. Welchii.

"A delicious buffet was served, featuring papaya, candied taro and hearts of palm salad. The fragrant aroma of gorgeous bougainvilleas and hospital alcohol enhanced the fond nostalgia for the meandering North Canadian."

The important arrival was heralded on Monday, August 30, 1943, of Miss Sari Dee Frank, new daughter of Captain and Mrs Louis S. Frank. Captain Frank is stationed at Cimarron Field, Oklahoma City. The clever announcement was entitled "United States of America Ration Baby One" and was a most official looking Ration Book—thoroughly enjoyed by the recipients.

The following article appeared in the Oklahoma City Times

Kisses Greet Healdton Man In Messina

Captain Fred T. Perry, late of Healdton, isn't quite sure whether it was a privilege or a misfortune to be the third United Nations officer to enter Messina.

Describing his entrance into the Sicilian city, Perry, a physician, said he "noticed that every window and every door on the street was opened a little and people were staring at me."

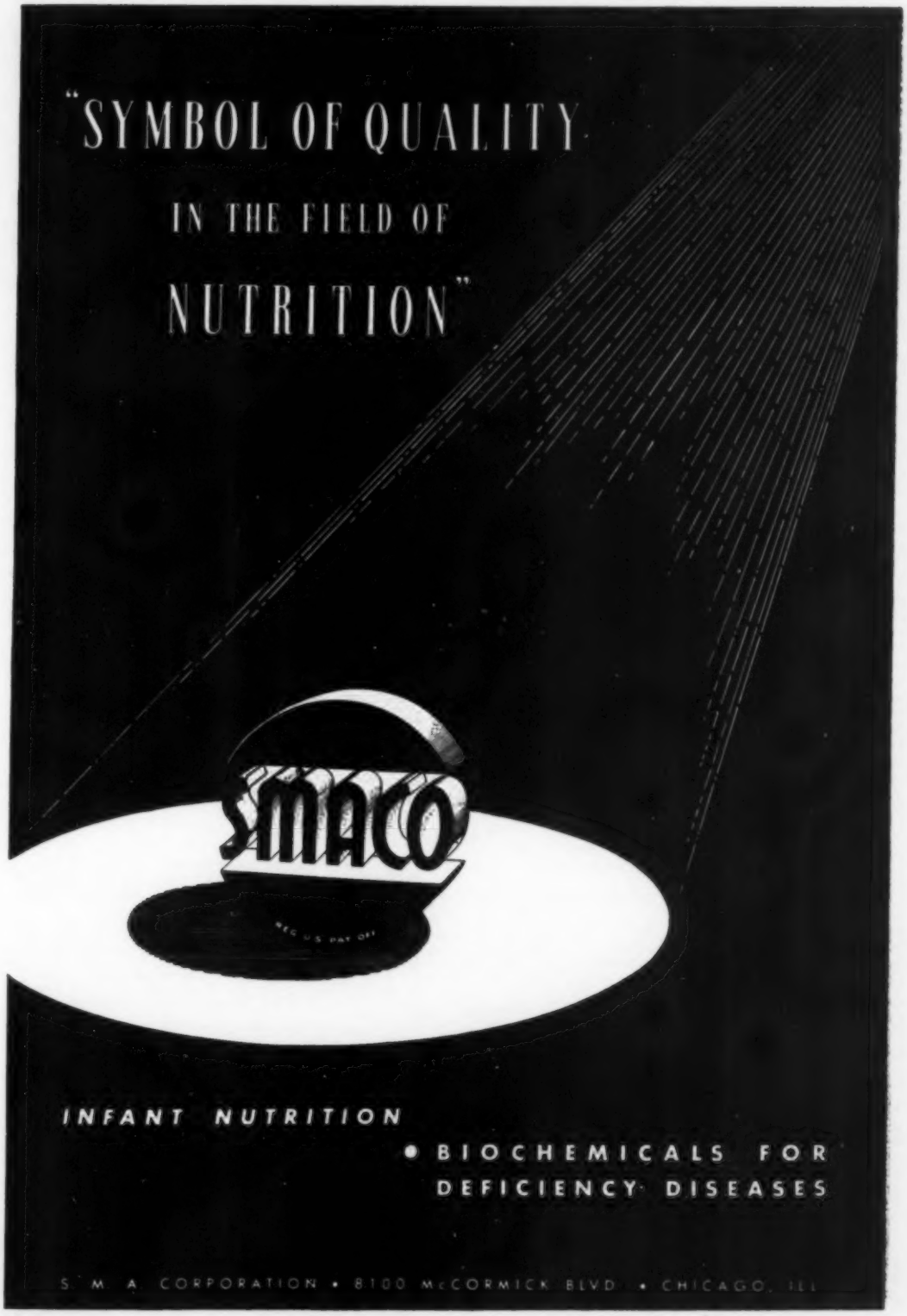
"Finally," he wrote his wife, "one woman gingerly pointed at me and said 'Americano?' I nodded my head and smiled—then all hell broke loose. The people ran out of the houses, grabbed and kissed and hugged me, all of them talking at once."

"Some of them," the letter continued, "said they had been waiting two years for us—why hadn't we come sooner?"

Perry said a favorite radio program of the Yanks in Sicily was a propaganda broadcast by a "sweet-voiced woman from Berlin" whom the soldiers immediately dubbed "Dirty Gerty."

Gerty implores the English-speaking soldiers to "stop this foolish venture," they roar with laughter and make salty comment on her "thin and corny" arguments.

Perry's parents, Mr. and Mrs. J. S. Perry, live at Purcell. Before entering the army with the 45th division, he practiced medicine at Healdton.


"SYMBOL OF QUALITY
IN THE FIELD OF
NUTRITION"
SMACO
REG U.S. PAT. OFF.
INFANT NUTRITION
• BIOCHEMICALS FOR
DEFICIENCY DISEASES
S M A CORPORATION • 8100 McCORMICK BLVD • CHICAGO, ILL.

Major John W. Records, Oklahoma City, reports from Carlisle Barracks, Pennsylvania. He is stationed at the Medical Field Service School there.

Lt. Colonel W. D. Anderson, Claremore, has been Post Surgeon for two years at Foster Field, Victoria, Texas. He reports his work as enjoyable as well as interesting.

Major E. R. Vahlberg, Oklahoma City, is now stationed at Randolph Field, Texas, taking the Flight Surgeon's course.

Lt. E. D. Padberg, Ada, is Officer in charge of the Medical Dispensary and Contagious and Quarantine Officer for the Classification Center in San Antonio, Texas. He is looking forward to Flight Surgeon's Training in the near future.

Captain J. Levine, McAlester, has been in North Africa for several months and reports the following by V-Mail after just now receiving our first news letter:

"I have flown on raids over Pantellaria, Sicily and Italy. At times they are commonplace, at others quite dramatic with anti-aireraft setting up a blanket of smoke and fire twenty thousand or more feet in the air—enemy fighters peeling off and coming in with their guns spitting lead and fire—the clatter of your own guns—the shouts over inner-phones—the wail and whine of the rushing wind—the powerful roar of motors—mountainous clouds of dust and smoke thousands of feet in the air from bombed area. A plane suddenly hit, shudders, staggers in flight, bursts into flames and falls downwards, its wild flight forever stilled.

"These and similar moments occurring in split seconds sort of sets ones sympathetic and porosympathetic network in a twitter."

Captain Charles H. Eads, Tulsa, is stationed at March Field, Riverside, California and states that he is the only "Okie" there. He has completed one year in the service. Captain Eads arrived at March Field last September and spent his first month there doing some basic training and going to school. He was then sent to Carlisle Barracks for another month of school and from there to Edgewood Arsenal, Maryland for . . . . . another month of school! From Edgewood Arsenal, he was returned to March Field where he was given the job as Assistant Executive Officer of the Station Hospital. He continued in that capacity until February at which time he became ill and was sent to Palm Springs for a short time. Upon his return to March Field he was put in charge of one of the Wards and is now serving there.

Record Production of Synthetic Substitute for Treatment of Malaria Disclosed

The price of Atabrine, synthetic substitute for quinine in the treatment of malaria, has been reduced to a new low of $4.50 per 1,000 tablets, Dr. Theodore G. Klumpp, president of Winthrop Chemical Company, announced recently as he disclosed receipt from the U. S. Army of the largest single order on record.

At the same time, he revealed that production of Atabrine in this country was now in excess of 500,000,000 tablets per year, sufficient for full treatment of 33,000,000 cases of malaria, and was rapidly approaching a rate of 600,000,000 tablets per year, which would be sufficient to treat 40,000,000 cases.

"The new price to the Government," Dr. Klumpp said, "reflects both recent increases in Government orders and improvements in the manufacturing process. The $4.50 price to the Government compares with the former low of $6.00 per 1,000 tablets, with the $66.66 in 1933, when Atabrine was first introduced to the American medical profession.

"At the new low price, it costs about as much to treat a case of malaria with Atabrine as to send an airmail letter. Actually the cost of medication with Atabrine is 6¾ cents per case, as compared with 27 cents for quinine. This is believed to be less than the cost of any other medication for any serious disease."

Here is the.....
OKLAHOMA GROUP
Liability Insurance!

✓ AUTOPSIES
✓ INQUESTS
✓ PERSONAL RESTRAINT
✓ ASSAULTS
✓ LOSS OF SERVICES
✓ SLANDER
✓ LIBEL
✓ UNDUE FAMILIARITY
✓ ANAESTHESIA HALLUCINATIONS

This is the most liberal malpractice insurance policy ever offered the medical profession in this state, with control of claims, suits and rates vested in a committee, controlled by doctors.

OKLAHOMA GROUP
LIABILITY INSURANCE
is written and offered by
LONDON & LANCASHIRE
State Office in Midwest Bldg.
Oklahoma City

Written by Oklahoma doctors for doctors of Oklahoma

Cheerful, Home-like Private Rooms Induce Rest at Polyclinic

PLEASANT ROOMS AN AID TO RECOVERY

Patients, physicians and visitors delight in the cheerful, home-like atmosphere of Polyclinic's private rooms. These have been decorated and furnished with careful attention to details which make for comfort, livability and peace of mind.

Simmons metal furniture, with beds and mattresses unequaled for sheer luxury, are in every room. Lighting fixtures are adjustable to graduated degrees of light. Many of the rooms have private baths and are completely air conditioned providing an even, comfortable temperature at all times.

POLYCLINIC HOSPITAL

THIRTEENTH and ROBINSON OKLAHOMA CITY

MARVIN E. STOUT, M.D.
Owner

MEDICINE AT WAR

The following article entitled "Wartime Nursing is Different" is an official communication from the War Manpower Commission. It graphically depicts the urgent need for the utmost utilization of nursing manpower during the war. In its appeal for cooperation from physicians and hospitals it is basically sound and such cooperation must be given if success in this field is achieved.

If you know of a nurse who is inactive in the war effort or if the nurse in your office could be doing more toward the war effort in another field of nursing,ask her to contact the local chairman of the Nursing Council for War Service. Physicians and hospitals must realize that it is their duty to replace registered nurses in their employment with other personnel unless they are absolutely essential to the health of the patients and not merely for the convience of the physician or hospital.

WARTIME NURSING IS DIFFERENT

"It is utterly impossible to provide the necessary volume of wartime nursing service on a peacetime basis. Places where nursing is going on as usual must share with others. Individual nurses who have not made adjustments to wartime needs for their services should understand the necessity for their participation.

"The National Nursing Council has pointed out that the value of any national plan must be judged by its usefulness at the local level, i.e., where nurses live and work—in the country, in the villages, towns, and cities of the nation.

"Wartime nursing is different! That inescapable fact must be generally accepted by nurses, by physicians, and by hospital administrators. Energy and motion now spent in resistance to change must be released for the attack on war-created needs.

"Nurses have wrought many changes, but not enough, in the pattern of nursing service since Pearl Harbor. "We just do the best we can" is heard more frequently than "This is our plan." Generally speaking, educational programs have received more thought than the service programs. Acceleration of the basic course in nursing is an outstanding example. State boards of nurse examiners have initiated others.

"The principles of good nursing have not changed, but nurses are learning to concentrate on the essentials. In the analysis and administration of nursing service radical changes are being made. Tremendously valuable assistance in caring for patients is being secured from the Red Cross nurse's aids and other volunteers as well as from paid auxiliary workers.

"Thus far nursing service has not been rationed; such rationing would be complicated by the differences in individual nurses and the degree of essentiality of needed services. The sharing of services is more difficult than the sharing of goods.

"A critical shortage of nurses exists. Here are the facts:

"Over 36,000 nurses are now with the armed forces and the Red Cross has accepted responsibility for the recruitment of an equal number by June 30, 1944. Our men are receiving skilled medical care of a high order as shown by the high percentage of recovery from injury. Skilled nursing is an important factor in such care. Then, too, the very presence of nurses near the bases of military operations has repeatedly been described as a potent force in maintaining morale.

"There has been an unprecedented increase in the use of civilian hospitals. Hospitals gave fourteen and a quarter million more days of care in 1942 than in the preceding year and the trend still is definiteiy upward. This is in keeping with the rapid growth of the Blue Cross (group hospitalization) plans and the Children's Bureau hospitalization program for the care of the families of service men.

"Nursing is essential to the nation's health. The National Nursing Inventories (of nursing resources) of 1941 and 1943, by the U. S. Public Health Service, offer a comparison of data for the two years.

"The total number of nurses graduated in the two years is well in excess of the number withdrawn for military service; this fact is not apparent in the inventory. The returns are apparently incomplete. Active nurses who did not return their questionnaires apparently did not realize the profound importance of the information requested. This information is the basis for present planning and safeguarding the future.

"The relatively small decrease in the number of institutional nurses is much less significant than the increased use of hospitals in creating the serious shortage of nurses. The increased number of nurses in industrial nursing is, of course, not surprising.

"The large number of inactive nurses who reported themselves available is encouraging, but—available for what? Full time? Part time? These nurses and others who are still "hidden" can make a valuable contribution to our nursing resources. Although it requires a little more planning, the service of two part-time nurses can equal that of one full-time one. Wartime nursing puts a tremendous burden on all the administrative nurses.

"Here is the program of the new Nursing Division of the Procurement and Assignment Service. The Red Cross recruitment committees are pledged to recruit 36,000 nurses this year. The new division will (1) determine the availability for military service or essentiality for civilian service of all nurses eligible for military service and submit such determinations to the American Red Cross for use in procurement of nurses for the Armed Forces; (2) promote plans for maximum utilization of full-time nurses and those who are able to serve only part time; (3) develop and maintain a roster of all graduate registered nurses, and (4) develop and encourage sound methods of supplementing the work of nurses with non-professional personnel.

"Through the War Manpower Commission, nursing will not only have the benefit of the experience of medicine in the procurement and assignment of physicians, but means will be found to interpret wartime nursing to physicians and their cooperation secured in effecting desirable wartime adjustments."

Suggested Reading

1. Priorities for Nurses: National Nursing Council for War Service 1790 Broadway, New York, N. Y. May, 1943, revised edition.

2. Distribution of Nursing Service During War: National Nursing Council for War Service, 1790 Broadway, New York, N. Y. May, 1942.

3. Volunteers in Health, Medical Care and Nursing. U. S. Office of Civilian Defense, Washington, D.C.

National Nursing Inventories

	1941	1943
Total returns	289,286	259,174
Active		
Institutional	81,708	77,704
Public Health	17,766	18,900
Industrial	5,512	11,220
Private duty	46,793	44,299
Other	21,276	18,476

Inactive but available for nursing	25,252	38,746 (of these 23,576 are married and under 40 years of age)
Inactive, not available	90,979	49,829
In Nurse Corps of Army and Navy	over 6,371	36,000 (precise data not available)

25 YEARS AGO

It is interesting to compare the handling of the nursing question for the armed forces with 25 years ago. It is apparent that our state has grown very much professionally during this time.

JOURNAL, September, 1918

THE ARMY NURSE QUESTION APPLIED TO OKLAHOMA

The War Department, in calling for nurses over the the United States, has estimated that Oklahoma should furnish more than 400. Oklahoma County, with three rather large hospitals, is called on for 55, while Muskogee County is asked to furnish 35.

We presume this demand is made upon basis of estimated population, at any rate the calculator has overlooked the fact that this is strickly a rural country, that nurses were practically unobtainable before the War in sufficient number to meet the demands and that many of the counties assessed for a certain number of nurses have none whatever to send and have never had them. In such counties as these, mind, if a patient demanded a nurse, the nurse was imported, as a rule very unwillingly on her part, and hurried back to the city when her task was completed. Attention is called to this condition of affairs now in order that no reflection shall lie upon the state in its failure to come up to the number—it should not be forgotten that in all other things, Liberty Bond sales, Red Cross drives and similar needed activities incident to the War, Oklahoma has done herself proud so far and will likely, as she has heretofore done, carry more than her share of such burdens in the future, thus relieving communities not so fortunately able. But we cannot supply "Woman Power" if we have none. We can send all we have in that respect, but will not fill our so-called quota.

The plan to give courses in nursing of a very intensive character, aimed to hurriedly fit the young woman to take the place of a nurse, seems to be the nearest solution of the matter and should be encouraged. It should be encouraged not only to meet the present war needs, but after the war we should have an overplus of nurses as compared with pre-war days in order to give the people adequate nursing service. It is questionable, in view of the shortage of nurses, if there was any good sense in requiring such a long course of training as is required to graduate a nurse. It has long semed to the writer that it was not necessary to place an intelligent young woman in a hospital and have her do the drudgery she is called on to do, go through the same old sing-song of routine daily for three years before she is graduated. It seems that intelligent young women should learn in less time than that to carry out a physician's directions, those most essential to the successful conduct of the average case.

It seems that the medical handling of the local draft boards have been handled very much more efficiently than during World War I and we should be proud of our work at this time.

THE RESPONSIBILITY OF MEDICAL OFFICERS OF DRAFT BOARDS

Not since the War begun has the responsibility of the individual member of Local and Medical Advisory Boards been so accentuated as is now being done by the newly created Medical Section of the Provost Marshal General's Office.

Medical officers of both Local and Medical Advisory Boards are being advised that they must no longer regard their duties as mere matters of form to be carried out when they have the time and inclination to do so, but they must regard them as a most serious obligation toward the Nation. The advices strongly indicate that the authorities are rather tired of the attitude of the certain rare examiner that he is to be pampered with reference to his work. Such men are advised that they must either work or get off the boards and make way for men who will perform the services needed in a proper manner.

The greatest sacrifice imaginable is being made by men who enter the Medical Corps of the Army. With that clearly in mind there should be no delusion in the mind of the man who is permitted to remain happily at home, pursuing his lucrative occupation, as to his duty to the Nation. He should work and work with the very highest efficiency.

Personal and General News. JOURNAL, September, 1918.

Drs. J. E. Hughes and G. S. Baxter, Shawnee, have received Medical Reserve commissions.

Cloudchief and Cowden, neighboring towns in Washita County, are clamoring for physicians. All they had have entered the Army.

Yale citizens are complaining that so many physicians have entered the army from that place that there are not enough left to look after the needs of the sick.

Sapulpa papers indicate that the city authorities of that place have not yet progressed to the point of prohibiting 4th of July foolishness as they report several casualties on that day due to the obsoluete fire cracker and similar relics of the darker ages.

Pottawatomie County physicians recently assembled and drafted resolutions that certain persons in that locality had failed to pay bills due members of the Medical Reserve Corps now in France or in Military Service and that they would hereafter refuse to render any professional service to such delinquents unless they paid the debt due to the absent physician.

• OBITUARIES •

CHARLES T. SCHRADER, M.D.

1879-1943

Dr. Charles T. Schrader died at his home in Bristow, August 27, of a heart attack.

In the early 1900's, Dr. Schrader came to Oklahoma and has been a resident of Creek County for 40 years. He was born in Indiana. Active in the civic affairs of Bristow, Dr. Schrader was three-time mayor. He was a member of the Bristow Methodist Church and a Mason.

Dr. Schrader is survived by his widow and six children: Mrs. Marjorie Rainwater, Drumright; Mrs. Betty Lou Wade, Bristow; Billie Katherine Schrader, Washington, D. C.; Mrs. Georgia Rose Sands, Alexander Va.; Ted Schrader, Bristow; and Charles Schrader Jr., in service with the Air Corps stationed at Fort Worth, Texas.

Woman's Auxiliary

The Woman's Auxiliaries to the various County Medical Societies over the State are just beginning this month to make their plans for the coming year's work. The summer months have been filled with individual members taking active part in the various war activities of their community and they are now making the necessary readjustments in their programs to fit in with the Auxiliaries regular program and war work for 1943-44.

Changes in their personal and county needs has made planning in advance difficult this year and as we go to press we have not received names of officers or committee chairmen from all the organized County Auxiliaries.

Mrs. F. Maxey Cooper of Oklahoma City, as our new State President, will have a message in the October issue which will be of assistance to the County Auxiliaries in completing their programs.

OKLAHOMA COUNTY OFFICERS FOR 1943-1944

President—Mrs. Gregory Stanbro....220 Edgemere Court.
President Elect—Mrs. Walker Morledge..200 N.W. 18th St.
Vice-President—Mrs. Jess Herrmann..1147 N.W. 38th St.
Corres. Secretary—Mrs. Oscar White....609 N. W. 41st St.
Record. Secretary—Mrs. Gerald Rogers..524 N.W. 15th St.
Treasurer—Mrs. Bert Mulvey.....2632 N. W. 24th St.
Ass't. Treasurer—Mrs. John Pine.....423 N. E. 16th St.
Parliamentarian—Mrs. Floyd Keller..1213 Larchmont Lane
Press & Publicity—Mrs. Joel Price.....912 N. W. 37th St.

Mrs. Gregory Stanbro, President of the Oklahoma County Auxiliary, has called a meeting of the Board for September 9. The Board will make plans for the Woman's Program of the Board for September 9. The Board will make plans for the Woman's Program of the Clinical Society, which will be held in Oklahoma City, October 18. The dates for the Registration Tea and the regular October meeting of the Auxiliary will be decided at the meeting.

TULSA COUNTY OFFICERS FOR 1943-1944

President—Mrs. John C. Perry.....2928 S. Columbia Pl.
President Elect—Mrs Carl Hotz.....2234 E. 22nd Pl.
Vice President—Mrs. David L. Garrett....1368 E. 27th St.
Record. Secretary—Mrs. M. O. Nelson....1544 S. Norfork
Corres. Secretary—Mrs. L. C. Northrup..1828 E. 22nd St.
Treasurer—Mrs. A. H. Ungerman.....1718 E. 37th St.
Historian—Mrs. J. Fred Bolton.....212 E. 27th St.
Parliamentarian—Mrs. Frank L. Flack..1747 S. Florence.

University of Oklahoma School of Medicine

During the past month Dr. H. A. Shoemaker, Acting Dean, has twice been to Dallas, Texas, for a conference with the Chief of the Army Specialized Training Branch, Eighth Service Command, regarding selection of students for premedical and medical training in the Eighth Service Command. Most of the medical schools and dental schools in the Eighth Service Command were represented and plans were formulated which will facilitate the selection of students to be assigned to this training.

The Naval Specialized Training Unit at the School of Medicine was activated July 1, 1943, with 56 trainees.

Final examinations for the summer semester ended August 23 and a new semester will start September 6, 1943.

A recent issue of the Journal of the American Medical Association reports that Dr. Thirl E. Jarrett, Class of 1936, was awarded the Silver Star for gallantry in action.

Dr. George N. Barry, Medical Director, and Mr. Howard R. Dickey, Chief Clerk, University Hospital, will attend the meeting of the American Hospital Association, Buffalo, New York, September 15-17 inclusive.

The Oklahoma Hospital for Crippled Children has 125 cases of poliomyelitis where they are being treated under the direction of the Department of Orthopedics and Pediatrics. The care of these patients has involved considerable additional expense and the various County Chapters of the National Foundation for Infantile Paralysis have come to the aid of the hospital. The Red Cross, the State Health Department, Oklahoma Commission for Crippled Children, and other agencies have co-operated in this work.

Dr. Charles M. Bielstein, formerly resident in Pediatrics and since July 1 has been serving as Special Physician, has been ordered to active duty with the Army on September 5, 1943. Dr. Bielstein has been very active in caring for poliomyelitis cases and will be greatly missed.

Classified Advertisements

FOR SALE: Complete office fixtures for physician's office. For further information address Mrs. J. D. Pate, Duncan, Oklahoma.

Golden Maxims

In the pocket of Hon. Stephen Allan, who was drowned on the "Henry Clay" was found a printed slip, apparently cut from a newspaper, from which the following is copied. It is worthy to be engraved on the heart of everyone.

"Keep good company or none.
"Never be idle; if your hands cannot be usefully employed, attend to the cultivation of your mind.
"Always speak the truth.
"If anyone speak evil of you, let your life be such that none will believe him.
"Drink no kind of intoxicating drinks.
"When you retire to bed. think over what you have done through the day.
"Avoid temptation through fear you may not withstand it.
"Earn money before you spend it.
"Do not put off till to-morrow that which should be done to-day.
"Never speak evil to anyone.
"Keep pure if you would be happy.
"Save when you are young, to spend when you are old."

Read the above maxims at least once a week.

I said, I will take heed to my ways, that I offend not in my tongue. I will keep my mouth as it were with a bridle. Psalm xxxix. 1,2.

Culture and Medicine

One cannot practice medicine alone and practice it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The practitioner needs culture as well as learning. The earliest picture we have in literature of a scientific physician, in our sence of the term, is as a cultured Greek gentleman. —Aequanimitas with Other Addresses. Sir William Osler. 3rd Edition.

Blue Cross Reports

The enrolment of Farm Security Administration families in Oklahoma is finally under way.

The ward plan created to serve these people will be offered at this time to District No. 2 which includes the following counties; Alfalfa, Blain, Canadian, Creek, Garfield,Grant, Kay, Kingfisher, Lincoln, Logan, Major, Noble, Okfuskee, Oklahoma, Okmulgee, Osage, Pawnee and Payne.

The enrolment will be conducted on a county basis. Creek County was the first to complete its enrolment. They had 270 farm families as borrowers; 152 of them have been enrolled and their group went into effect September 1. The other 17 counties will enroll as the county supervisors find time to do so. The plan has been presented to all counties but due to local plans and lack of time it may take six months before all counties will get the job done.

As yet we have no information on when the plan will be submitted to the other districts in the state. Experience in District No. 2 will probably determine when the rest of the State will be offered the plan.

From time to time bulletins will be sent to all member hospitals keeping them informed of the progress we make.

Mr. V. E. Bishop, Regional Director in charge of the Oklahoma City office, and Mr. N. D. Helland, State Director, spent three days in Okeene, Oklahoma, as guests of Dr. L. R. Kirby. The purpose of this visit was to offer the Blue Cross Plan to Okeene and the surrounding community on a community basis.

Meetings were held with the Kiwanis Club, the Senior Chamber of Commerce, the Junior Chamber of Commerce, and the farmers. Our movie, "The Common Defense" was shown in the local theaters and the weekly paper cooperated by running an article about the plan.

The residents of Okeene and the surrounding community pay their light bills monthly through the two local banks. The banks agreed to permit local residents to pay their Blue Cross dues on the same basis. The banks will in turn remit to the Blue Cross office for the group each month.

After discussing the program with the local leadership it was decided that the Junior Chamber of Commerce would conduct enrolment as a civic activity. Any gainfully employed person living in Okeene (a town of 1100) or any farmer within the Okeene shopping area is eligible. One-third of the residents are required to make the required group. The enrolment is to be conducted from September 1 to September 20, services to be effective October 1. The results of this enrolment will be available in October.

Dr. Kirby is to be complemented on the fine cooperation he enjoys from his community. Going through his hospital would be an inspiration to anybody. In our humble opinion the cleanliness and efficient manner in which this hospital is run constitutes a fine example of what can be done in a small community. May we also recommend Dr. and Mrs. Kirby as excellent hosts.

The Measure of Progress

Measure as we may the progress of the world—materially, in the advantages of steam, electricity, and other mechanical appliances;sociologically, in the great improvement in the conditions of life; intellectually, in the diffusion of education; morally, in a possibly higher standard of ethics—there is no one measure which can compare with the decrease of physical suffering in man, woman, and child when stricken by disease or accident. This is the one fact of supreme personal import to every one of us. This is the Promethean gift of the century to man.—Aequanimitas and Other Addresses. Sir William Osler. 3rd Edition.

Warrior

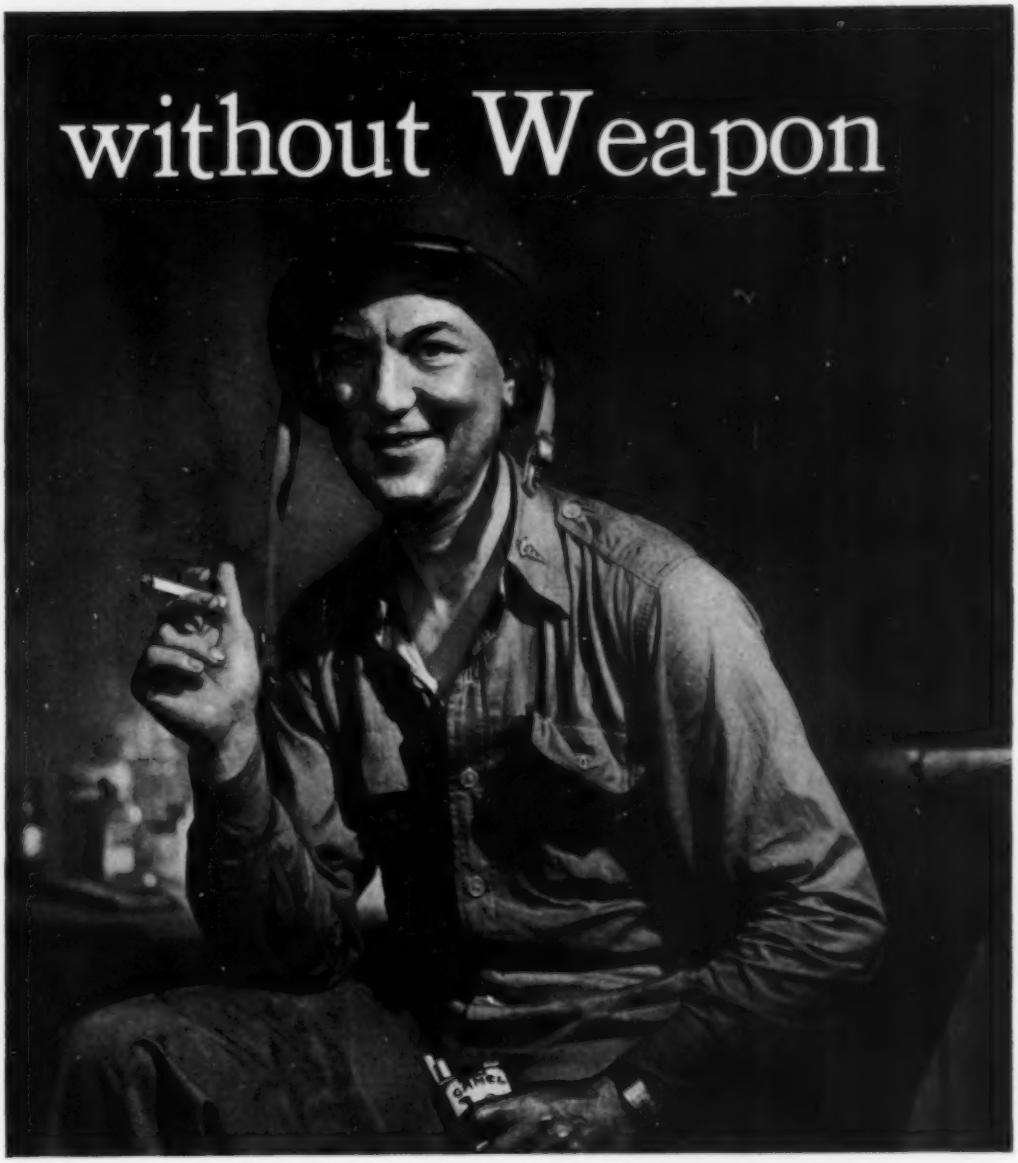
THE military doctor of World War II – unarmed yet unafraid – moves up shoulder to shoulder with the combat troops. Bayonet charge . . . parachute landing . . . beach-storming from raiding barges . . . constantly, the medical officer proves that he is every inch a fighting man.

More than likely, he's a Camel smoker, too, for Camel's mellow mildness and smooth, comforting flavor quickly won it first choice in the armed forces.*

Planning a gift for someone in service? Make it Camels . . . a carton . . . the *thoughtful* remembrance.

BUY WAR BONDS STAMPS

Camel



1st in the Service

*With men in the Army, the Navy, the Marine Corps, and the Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)

New reprints available on cigarette research—Archives of Otolaryngology, February, 1943, pp. 169-173—March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Square, New York 17, N. Y.

Costlier Tobaccos

BOOK REVIEWS

"The chief glory of every people arises from its authors."—Dr. Samuel Johnson.

THE BOY SEX OFFENDER AND HIS LATER CAREER. Lewis J. Doshay, Psychiatrist, Children's Courts, New York City. Foreword by George G. W. Henry, Associate Professor of Clinical Psychiatry, Cornel University Medical College. Grune and Stratton, New York. 1943.

This is a discussion pertaining to a study and follow-up of 256 juvenile sexual cases that had been treated at the New York City Children's Court clinics between June, 1928 and June, 1934.

The author classifies the cases into two groups; a "primary" group, having no known involvement in any offensive behaviour other than sexual, consisted of 108 cases; a mixed group of 148 juvenile sex offenders who were known to have engaged in various offenses in addition to their sexual abnormalities. The study revealed that the primary group responded one hundred per cent and not a single one of the 108 cases repeated a sexual offense after treatment was given. The treatment consisted of initial psychiatric study, followed by a visit or visits to the court and court clinics where latent forces of shame and guilt were mobilized into activity by the attitudes of the clinic and court toward the offenders. The follow-up studies showed that of this group there were no further sexual offenses and only three petty general offenses occurred later in life.

In the mixed group of 148 cases, after similar therapy, there occurred 10 sexual and 99 general violations, 84 of the latter being felonies, including 34 burglaries, 19 larceny cases and 4 serious assaults, many crimes being accompanied by the use of dangerous weapons.

The text is strongly biased in favor of environmental influences being responsible for juvenile delinquency. The tables and statistical information would impress some toward believing that the treatise is "scientific". However, on page 14, the author quotes from an article published by himself in 1930 with a title, "Evolution Disproves Heredity in Mental Diseases". The quotation would infer that no undesirable trait can be inherited because it could not be carried on in accordance with survival of the fittest, ergo, no undesirable or regressive traits can be inherited. This faulty logic has certainly been disproved, for example, by studies of Slye on the inheritance of cancer in mice. No one could say that cancer is a desirable trait.

It would seem quite possible that the "primary" group of cases were likely incidental victims of the law, indulging possibly much the same as many juveniles do. Juveniles also indulge in the matter of "primary", non-sexual encroachments and a follow- up on these individuals would reveal that many of them have not indulged further after having been caught in the act or having been admonished by proper authorities. These "primary" cases happened to be caught while indulging their offenses and responded to the matter of shame and guilt. It is quite possible that the sexual crime would not have been repeated in any one of them, even though not apprehended, arising out of the sense of guilt and shame that would have been mobilized as a result of individual personal reflection on the matter after the act had been committed.

Those involved in mixed crimes were obviously more psychopathic, and a study of their background shows a more serious environment for them. However, the question may be asked; was the environment not a part of the constitutional make-up of the persons from whom these mixed group cases arose?

This study is only a further demonstration that sociological treatises serve more to provoke questions rather than to offer a solution for any of them.

The book may be summarized by saying that some juvenile deliquent boys make sociological adjustments later and some do not, even through their formative period they indulge in aberrant behavior. We do not have scientific explanation either for the adult successes, or for the adult failures.

However, the book is well written and the cases are interestingly presented. There are also some potentially practical points, provided that the "primary" group were not merely juveniles who would have corrected their abnormal behavior spontaneously without treatment anyway.

The theoretical components of the book are exemplary of the bases of action taken by current sociological theorists who would lead us to believe that they know and have the key to "social security".—Coyne H. Campbell, M.D.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATIONS. Edited by Richard M. Hewitt, A. B. Nevling, John R. Miner, James R. Eckman and M. Katharine Smith. Vol. XXXIV, 1942. Published July, 1943. W. B. Saunders Company.

This well indexed volume of 1000 pages contains much valuable information for the diagnostician and the general practitioner as well as for the general surgeon. In fact, this particular volume devotes more space to medicine than to surgery.

The contents are listed as follows: Recent Advances in Chemotherapy; Alimentary Tract; Genito-Urinary Organs; Ductless Glands; Blood and Circulatory Organs; Skin and Syphilis; Head, Trunk and Extremities; Chest; Brain, Spinal Cord and Nerves; Radiology and Physical Medicine; Anesthesia and Gas Therapy; Miscellaneous.

The general scope of this work can be judged from the above listing of subjects but under these various headings 513 articles are presented. Obviously it is not possible to consider each topic in this brief review but in addition to the routine treatment of many well known subjects with the added knowledge of recent advances, there are valuable papers on the newer aspects of chemotherapy including experimental studies; on vitamin therapy; and of great interest at this time are the papers on the "Dangers of Aerial Transportation". The later refers particularly to intrathoracic conditions including artificial pneumothorax.

There is a valuable discussion of the "Clinical Applications of Oxygen Therapy". This subject is receiving more and more attention and is assuming a position of increasing importance in therapy. This volume is equally interesting from a surgical viewpoint and any surgeon who takes time to read it will be well rewarded.

Considering the book as a whole, it is refreshing to think a work of such wide interest and particularly so rich in general medical lore, should eminate from a clinic built around a family surgical career.

The reviewer recommends this volume not to specialists but to all doctors who wish to be well informed.—Lewis J. Moorman, M.D.

SURGICAL PRACTICES OF THE LAHEY CLINIC. W. B. Saunders Company, New York. 1942. 900 pages.

Here is a book which contains, within its covers, a wealth of surgical information easily available to the seeker because of an excellent index. The material, workmanship of the book, format, type, paper and printing, are worthy of the publishers. The illustrations really illustrate; line drawings, diagrams and tables

add to the value of the text. There is a commendable lack of x-ray reproductions which are so often ambiguous.

It is manifestly impossible to adequately review such a book within the limits of the space available, and any review is bound to be colored by the interests and experiences of the reviewer. Certain psychologists tell us that even the character of the morning repast may influence one's reactions. This reviewer was interested to read the Lahey book from the point of view of the younger surgeons or surgeons-in-the-making, and those with perhaps a less wide field of experience. What sort of guide is it for such?

For one thing, this book illustrates the fact that the true surgeon is interested above all in the welfare of the patient, the comfort, and the safety compatible with the largest ultimate benefit of any surgical procedure, even the morale. So this "Surgical Practice" includes all ancillary studies, the patients' history, symptomatology, etiology, surgical patnology, laboratory and x-ray procedures and established principles for pre-operative and post-operative care. Numerous, acceptable case histories illustrate and add interest as well as information to the text, and so increase its clinical value.

To mention specifically the especially excellent articles would seem almost like numbering the chapters—a mere "catalogue of ships". However, the reviewer ventures a few observations.

The section on the Thyroid is a textbook in itself and can be read with profit by every surgeon doing goitre work. In the section on the Pelvis, the paper on "Cancer of the Cervix" deserves praise for its brevity in assigning the treatment of these cases to the roentgenologist; the paper on "Vaginal Hysterectomy" is to be commended for the clearness of detail of both text and illustrations. In the opinion of the reviewer, more of our hysterectomies should be done by the vaginal route.

Both in the section on Anesthesia and throughout the text is given much information on the newer materials and methods of inducing narcosis. The space given to nupercain seems large in proportion, while the use of pentothol sodium is mentioned only in connection with encephalography, transurethral, prostatectomy, "by others", and in combination with fractional spinal anesthesia. Many surgeons in the smaller clinics are finding an increasingly large field of usefulness for pentothol sodium.

For the surgeon-in-the-making, some of the most valuable articles in this comprehensive "Practice" are those dealing with the common, every-day diseases and lesions, hallux valgus, diseases of the bile passages, breast cancer, sciatic pain (not "sciatica"), empyema and hemorrhoids. We find expressed in these papers what may be called the philosophy of the causation of these diseases as well as a clear and concise, yet sufficiently complete statement of the principals of proper treatment which is commendable. If physicians would carefully examine all patients who present themselves with symptoms of hemorrhoids there would be less need for extensive resection of rectum and colon, for colostomies and ablative operations which the authors of this "Practice" have so well developed.

Also, if surgeons generally absorbed the implications recurrent throughout the book on the importance of early diagnosis there would be fewer of the chronic and complicated, and often intractable cases, to be referred to the larger clinics later. But, in view of this book, perhaps even this would entail a loss to surgical science.—A. S. Risser, M.D.

MEMOIR OF WALTER REED: THE YELLOW FEVER EPISODE. Albert E. Truby. Paul B. Hoeber, Inc., New York. 239 pages.

This memoir of Walter Reed, inspired and nurtured by the untiring researches of Dr. Phillip S. Hench and told with captivating facility by the veteran eye witness Brigadier General Albert E. Truby, constitutes one of the most dramatic human interest stories in the history of medicine. Aside from its scientific interest, its stirring spiritual values carry an intriguing appeal for both medical and lay readers.

Though practically every page possesses the readability of romance, the thread of authenticity is never lost. The observant medical reader cannot fail to note the fact that while this unprecedented bit of research, which resulted in the control of yellow fever, was directly under the auspices of the United States Government, it could not have been successfully consumated if it had not been for the convergence of high minded, humanitarian purposes which prompted Surgeon General Sternberg, Governor General Wood and Walter Reed to follow their instinctive medical urge without seeking or awaiting governmental approval. Historically, this is in line with the fact that all great medical discoveries have been individually inspired and independently pursued.

The following letter from Walter Reed to his wife, written at 11:50 P.M., December 31, 1900, from Columbia Barracks, Quemados, Cuba, should inspire an immediate desire to read this most interesting little volume:

"Only ten minutes of the old century remain. Here I have been sitting reading that most wonderful book, "La Roche on Yellow Fever" written in 1853. Forty-seven years later it has been permitted to me and my assistants to lift the impenetrable veil that has surrounded the causation of this most wonderful, dreadful pest of humanity and to put it on a rational and scientific basis. I thank God that this has been accomplished during the latter days of the old century. May its cure be wrought in the early days of the new! The prayer that has been mine for twenty years, that I might be permitted to do something to alleviate human suffering has been granted! . . . Hark, there go twenty-four buglers in concert, all sounding "taps" for the old year."

This book, in handy, attractive format, is easy to hold and easy to read. It constitutes a delightful bedside companion for the busy doctor in want of a stimulus for tomorrows duties.—Lewis J. Moorman, M.D.

AIR BORNE INFECTIONS: SOME OBSERVATIONS UPON ITS DECLINE. Dwight O'Hara, M.D., Professor of Preventive Medicine, Tufts College Medical School. The Commonwealth Fund. E. L. Hildreth and Co., Inc. 1943. 114 pages. Price $1.50.

This little tome is based upon the study of six diseases in the Commonwealth of Massachusetts which killed 300 per 100,000 in 1917 and now account for barely 100 deaths. In war times and crowding of people, the possibility of another pandemic of influenza as in 1918 makes a public health problem. The incidence of respiratory infections is found to be higher in overcrowded or confined areas, in barracks, in prisons or other institutions.

The decrease in mortality often preceded the development and application of preventive methods. "Can preventive methods be coordinated with other factors to achieve even greater improvement."

He emphasizes the fact that it is not so much the polluted air but that the mucous membranes are good air conditioning devices. On this account, artificially conditioned air is just as good a vehicle between throats as their being polluted. Natural immunity and acquired immunity is discussed at length and this is as fundamental as any one thing in medicine. "One thing seems certain, however, that specific antibody formation is stimulated only by exposure natural and artificial. This acquired immunity is obtained in one generation and lost in the next and their epidemics take on a malignant character."

The reactions are given of the nasal mucous membranes to climatic variants such as humidity and barometric pressure together with the vascular adjustments of nasal mucous membrane. The cilia of the respiratory

tract (cilia escalator) are continually cleansing it of offending material.

One does not realize the lessened incidence of Pneumonia Tuberculosis, Diphtheria, Measles, Scarlet Fever and Whooping Cough as shown in the author's graph covering the period of 1900-1940. Diphtheria seems to have gone like the wild pidgeon; measles less so; tuberculosis less than 50 per 100,000; pneumonia a very downward but irregular course. Hence it looks like the student of Geriatrics must be the doctor of the future. —Lea A. Riley, M.D.

Tyrothricin Found Beneficial in Treating Local Infections

Tyrothricin, a bactericidal substance recently isolated from a soil bacterium, applied to ulcers resulted in sterilization and healing if the local infection was caused by Streptococcus haemolyticus, Staphylococcus aureus or Streptococcus faecalis and encouraging results were obtained when it was applied to mastoid cavities following mastoid operations, Charles H. Rammelkamp, M.D., Boston, reports in the current issue of War Medicine. The latter is published bimonthly by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

Dr. Rammelkamp's findings are based on the use of the substance in the treatment of 58 localized infections, most of them located on the arms or legs of patients, and its application at the time of operation to 15 mastoid cavities infected with hemolytic streptococci.

"Early in the present studies," Dr. Rammelkamp says, "it was noted that in an infection associated with a mixed flora, that is, both with gram-negative and with gram-positive organisms, it was impossible to rid a lesion of the gram-positive component, even though large amounts of the bactericidal substance were applied. . . ."

He says that the results obtained in the mastoid group justify further trial of the substance in the treatment of mastoiditis following operation.

"The value of tyrothricin in the treatment of other forms of infection has not been established," Dr. Rammelkamp says. "Superficial streptococcic infections of wounds, burns or skin should respond to the local application of the bactericidal substance; staphylococcic infections are likely to be much more resistant. . . ."

He says that inasmuch as gramicidin, a substance obtained from tyrothricin, has been shown to be less toxic and at the same time more potent against gram-positive organisms, "it appears likely that this substance may prove more useful in treatment of certain localized infections."

Tubelculosis "Cure"?

Successful vaccination of children against tuberculosis, reported recently in newspapers, holds no immediate hope of a "quick cure" of adult victims of the disease. This was the statement released by the Department to newspapers shortly after an announcement of an experiment among Chicago children with Bacillus Calmette-Guerin vaccine.

The Department pointed out that experiments with this tuberculosis vaccine have been carried on since 1906. Efforts of experimenters have been to weaken a virulent strain of tuberculosis organisms produced in cattle to a point where a vaccine made from them will confer immunity in humans. There is always the possibility that the vaccine may become virulent and dangerous to use and European experiments were halted for several years after disaster attended the vaccination of infants in Lubek, Germany, in 1922. Careful work has been carried on at different points in the United States over a period of years, and the results obtained have been disputed by other equally careful workers. Similar reports of success have been made previously.

Until such time as the use of this vaccine is sanctioned by the American Medical Association, said the Department, people should not place many hopes on its effectiveness as a tuberculosis cure or preventive.

Your patients may have a preference for either Red Label *or* Blue Label KARO. If their grocers are temporarily out of their favorite flavor, you may assure them that *flavor* is the only difference between these two types of KARO for infant feeding.

Each contains practically the same amount of dextrins, maltose and dextrose so effective for milk modification.

How much KARO for Infant Formulas?

The amount of KARO prescribed is 6 to 8% of the total quantity of milk used in the formula—one ounce of KARO in the newborn's formula is gradually increased to two ounces at six months.

CORN PRODUCTS REFINING CO.

17 Battery Place • New York, N. Y.

MEDICAL ABSTRACTS

"LESIONS OF THE SUPRASPINATUS TENDON. DEGENERATION, RUPTURE AND CALIFICATION." C. L. Wilson. Archives of Surgery, XLVI, 307, March, 1943.

The author emphasizes that degeneration, rupture of, and calcification within the supraspinatus tendon may cause disability for as long as two years.

He discusses the gross anatomy of the supraspinatus tendon, the other short rotator muscles of the shoulder, the tendon of the long head of the biceps muscle, and the subacromial bursa.

The function of the supraspinatus tendon is primarily that of abduction of the arm. When the deltoid muscle is paralyzed, the arm can be abducted. Even after rupture of the supraspinatus tendon, injection to remove pain makes abduction possible though much weakened. This tendon acts as an abductor of the arm up to the horizontal position, and from there as a stabilizer of the shoulder joint.

In microscopic study, muscle cells are seen to end abruptly in tendon cells. The supraspinatus tendon is inserted into the greater tuberosity of the humerus through a layer of fibrocartilage, called "the palisades' by Codman. The "critical portion",—the rupture point of the supraspinatus tendon, is the half-inch proximal to the palisades.

Rupture occurs as a transverse tear in the fibers of the tendon. Incomplete rupture may occur on the joint side, where it is called a rim rent, on the bursal side involving the floor of the subacromial bursa, or within the substance of the tendon. A stub of the tendon, found attached to the greater tuberosity of the humerus after rupture, gradually wears away, and the tuberosity suffers erosion. The subacromial bursa is thick. There is exposure of the tendon of the long head of the biceps muscle.

Histological degeneration changes in the supraspinatus can be shown by staining. Degeneration leads to weakening of the tendon and eventual rupture under slight strain. It was demonstrated that a pull of 1000 pounds ruptured a normal supraspinatus tendon three millimeters thick and two centimeters wide.

Incidence of rupture is higher in males than in females, and though it is bilateral, it is generally on the right side. Fracture of the greater tuberosity, instead of rupture, usually occurs in persons under fifty years of age. Degenerative changes and vascularization, accompaniments of old age, may be the cause of the high incidence of rupture in persons over fifty. Trauma and wear may be precipitating factors. Whether occupation causes ischaemia or attrition still remains to be proven.

The clinical signs of rupture are pain at the insertion of the supraspinatus muscle, and inability to abduct the arm. Roentgenographic evidence is best obtained by chemical injection into the shoulder joint one centimeter anterolateral to the corneo-acromial joint, in the direction of the center of the head of the humerus. Rupture is indicated by either a finger-like projection flowing out of the joint cavity, or a free communication between the joint and the sub-acromial bursa.

Operation is the best treatment. A vertical incision one and one-half inches long is made over the anterior aspect of the head of the humerus with its upper end near the acromioclavicular joint and its lower end at the top of the bicipital groove. Repair is not difficult and the recovery period is two weeks.

Calcium deposits in the supraspinatus tendon are painful and irritate the surrounding muscles, tendons and the subacromial bursa. Rupture into the bursa often results in cessation of pain and symptoms. The incidence of calcium is higher in males than in females, and highest in occupations requiring constant use of the arm in abduction. Trauma may be a contributing factor, but is not the cause of calcification. Onset may be insidious or acute. Roentgenograms do not always show deposits. The best treatment is immediate excision of the deposit. In chronic cases diathermy results in absorption of the calcium.

Subacromial bursitis never arises as a primary condition, but is the result of rupture of the supraspinatus tendon or other lesions in the surrounding tissues. It may be treated by hyperabduction of manipulation.—E.D.M., M.D.

"RELATION OF HEMATOLOGY TO OTOLARYNGOLOGY." Goodlatte B. Gilmore, New York. Archives of Otolaryngology, Vol. 37, pages 691-698. May, 1943.

The author makes an attempt to show the relationship between hematology and otolaryngology by the enumeration of specific examples. Emphasis is laid on the fact that a disorder in one field may manifest itself by lesions of the other field. Blood dyscrasias, such as the leukemias, purpura, polycythemia, granulocytopenia and hemophilia, have at times otolaryngologic signs that may mislead the observer into overlooking the cause by paying too much attention to the effect. The changes in the blood in sepsis, Vincent's angina, the Plummer-Vinson syndrome and infectious mononucleosis and the pathologic changes of congenital multiple teleangiectasia are discussed.

Epistaxis persistent or repeated can be the initial sign of leukemia. There may be also hemorrhage in the external meatus, tympanic membrane, middle ear and labyrinth. Leukemic patients may complain of vertigo, tinnitus or deafness owing to the leukocytic infiltration or hemorrhage involving the acustic nerve. Lesions may be also found in the oral cavity. Bleeding gums resembling those of Vincent's infection and lesions imitating scurvy and stomatitis are common. Necrotic or membranous areas may also occur.

In infectious mononucleosis or glandular fever of Pfeiffer angina is a more or less constant symptom, and cervical adenopathy is always out of proportion to the extent of the lesion in the throat. In sepsis there may be a number of pathological conditions which are of interest to the otorhinolaryngologist. Polycythemia may occur in patients which chronic tracheal stenosis, in victims of chronic carbon monoxide poisioning and in persons suffering from repeated small hemorrhages. Epistaxis and bleeding from the gums are characteristic signs. Due to thrombosis of a vessel of the inner ear, Meniere's syndrome may also occur.

Hemorrhagic diathesis is often accompanied by epistaxis. Hemophilia is often first diagnosed by the rhinologist. In congenital multiple teleangiectasia recurrent epistaxis in members of a family through as many as four generations has been reported. There exist many red and purple nevi in the oral cavity and on the mucous membrane of the nose. In granulocytopenia caused by the administration of certain coal tar derivatives, aminopyrine, barbiturates, dinitrophenol, membranous or ulcerative infections in the mouth or pharynx regularly occur. The atypical peritonsillar abscess should be view-

ed with suspicion, that is, an abscess from which incision does not liberate pus as expected. Following the widespread use of sulfanilamide or its derivatives, leukopenia had frequently been reported and occasionally fatal cases of granulocytopenia. The Plummer-Vinson syndrome with its anemia, glossitis and dysphagia, borders the fields of otolarynogology and bronchoesophagology.

Tests for the coagulation time and bleeding time prior to tonsillectomy were at one time considered as a vital precaution. The value of these tests in lowering the incidence of postoperative bleeding is not doubted. A few well chosen questions about the family and personal history have far greater value. The blood sedimentation test has not been made much use of in otorhinolaryngology. The sedimentation rate is increased in direct ratio to the amount of tissue destroyed. It is a reaction too general to place much emphasis on it in the otolaryngological field.—M.D.H., M.D.

"DECOMPRESSION OF PROTRUDED INTERVERTEBRAL DISKS, WITH A NOTE ON SPINAL EXPLORATION." Arthur Ecker. Jour. A.M.A., CXXI. 401, Feb. 6, 1943.

Exploration of the cauda equina in the region of the fifth lumbar vertebra for intractable low-back pain gives prompt and persistent relief in properly selected patients. Exploration should be adequate, and should usually include the anterior aspect of the spinal canal above and below the fifth lumbar vertebra in the midline and far laterally near the intervertebral foramen on each side. The author suggests the interlaminar approach to the spinal canal after bilateral stripping of the sacrospinalis from the spinous processes and laminae, and decompression of small intraspinal protrusions of intervertebral discs without removal of any of the disc structure. The importance of not opening the dura is stressed.

The author considers a disc protruded only if it bulges more when the lumbar spine is extended as a result of the anaesthetist's lifting of the patient's shoulders. It is not the protrusion of the disc which causes sciatic pain, but the compression of the nerve root between the disc and the posterior wall of the intervertebral foramen.

Questionable, slight, and moderate protrusions of the intervertebral discs shoudl be left alone, and the overlying nerve root should be adequately decompressed. This procedure has yielded results as satisfactory as removal of the protruded portions of each discs, and it may minimize the incidence of the recurrence of symptoms.—E.D.M., M.D.

"CHEMOTHERAPY WITH SULFANILAMIDE: CLINICAL RESULTS." Otto Gsell. St. Gallen, Switzerland. Helvetica Acta. Vol. 10, pages 177-202. April, 1943.

It is now three years that clinical research on the effect of sulfanilamide preparations has begun in Switzerland. During this time it became evident that only three or four preparations can be considered as having the optimal clinical effect. These are as follows:

1. Sulfapyridine (M&B 673, Dagenan, Eubasinum) discovered by Evans and Phillips and introduced in 1938 by Whitby.
2. Sulfathiazole (Cibazol , M&B 760, Thiazamide) discovered by Hartmann, also by Foszbinder in 1939.
3. Sulfapyridine (sulfadriazine and Pyriminal) discovered by Finestone in 1940.

In addition as equally preparations have to be mentioned the following sulfathiazole derivatives:

1. Methylsulfathiazole (Ultraseptyl).
2. Sulfaethylthiodiazole (Gloubucid).

For the treatment of specific infections other preparations are also recommended, though their effect cannot be evaluated with as much certainty as the effect of the above named preparations against pnuemococcic, meningococcic and gonococcic infections. These preparations with specific effect are:

1. Sulfaguanidine and succinylsulfathiazole against intestinal infection.
2. Sulfones, e.g. tibatin (galactosid of 4.4 diaminodiphemylsulfone against streptococcic infections.
3. Marfanil against anaerobe infection.

The earliest sulfonamide preparation such as prontosil, rodilone, septacine are no more considered as first choice for the treatment of pneumococcic and meningococcic infections.

The three best sulfonamide preparations, in fact all sulfonamide derivatives, must be evaluated on the basis of their effect upon pneumococci, meningococci and gonococci. Against these micro-organisms the effect of the three preparations is specific and almost equivalent. Their effect in streptococcic and staphylococcic infections depends not only upon the chemosensibility of the pathogenic cocci but also upon various other factors such as site of the infection, the individual resistance of the body, and individual characteristics of the attacking germs. Hence, the results of sulfonamide therapy in streptococcic and staphylococcic infections show a great variation. The success often depends on the basculariization of the focus of infection.

Erysipelas responds to sulfonamide therapy quickly, and even the earlier types of sulfonamide preparations give good results if used in high doses. Infections of the skin are also easily influenced if they are superficial, such as impetigo, folliculitis, and ulcerations. But as soon as the infective focus becomes encapsulated by a thick wall of inflammatory products and necrotic tissue, as in furuncles and abscesses, or if the blood supply of an infective focus is diminished as in wounds, a good result cannot be expected with certainty.

Streptococcic and staphylococcic infections of the throat and of the cavities of the ear and nasal sinuses are often favorably influenced by sulfonamide preparations, yet the evaluation of sulfonamide therapy in the otorhinolaryngology is not easy, and the opinion of clinicans are still not uniform. One is rarely certain whether the quick recovery was due to sulfonamide drugs or it would have come spontaneously without chemotherapeutic remedies.

How difficult it is, for instance, to find the truth in the sulfonamide therapy of lacunar angina! The author treated 44 cases of acute lacunar tonsillitis with large doses of sulfonamide for two days; in 36 patients the fever ceased and there was complete recovery within from 24 to 48 hours, and in two patients within 72 hours. For the six cases which did not answer to sulfonamide it is assumed that the tonsillitis might have been caused not by cocci but by spirilla or certain types of virus, and such micro-organisms do not respond to sulfonamides. It also happened according to the author's observations that acute lacunar angina with high fever developed in a patient who has been under sulfonamide therapy against a gonococcic infection.

He mentions also recurrent tonsillitis as a new after effect of sulfonamide therapy. This phenomenon is of about the same nature as recurrent pneumonia attacks seen after successful treatment of lobar pneumonia. Recurrent tonsillitis develops after an interval of from 4 to 7 days; it is not a new infection but a local affair due to either an incomplete destruction of bacteria or an incomplete development of antibodies.

In streptococcic and staphylococcic infections of internal organs, as in meningitis, osteomyelitis, sinusitis, no more effect can be expected from sulfonamide preparations if necrotic tissue is present. In such cases a treatment in two phases is the best; high doses of sulfonamides moderate the infection and often prevent general sepsis; the second phase of therapy is the surgical removal of infection localized by chemotherapy. In case of osteomyelitis this therapeutic plan was frequently successful. In meningitis the two-phase therapy reduced the mortality of the disease from 100 per cent to about 30 per cent.

The effect of sulfonamide in focal infection is still waiting for proper evaluation. In influenza infections sulfonamide preparations proved valuable, especially in influenzal meningitis of small children, and at the Pediatric Clinic of Zurich the mortality of the disease was reduced from 92 per cent to 43 per cent.

In only three virus diseases was there any evidence of success of sulfonamide therapy; in trachoma, lymphogranuloma inguinale and smallpox. It happens that these are the virus diseases most often complicated by secondary coccal infections. It is therefore hard to decide whether sulfonamides have any effect on the virus itself. This is true also for common cold and its complications. If sulfonamide is used in common cold at all, it should be administered only against a secondary coccal infection. As a non-specific remedy or as an antipyretic substance, sulfonamide is definitely contraindicated; it is an abuse to prescribe sulfonamides for catarrh or for febrile diseases indiscriminately.—M.D.H., M.D.

"CLINICAL AND BACTERIOLOGICAL RESEARCH ON THE TONSILLAR ORIGIN OF FOCAL INFECTIONS: ASSAY OF A DIAGNOSTIC METHOD FOR CUTANEOUS STREPTOCOCCIC ALLERGY AND ITS RESULTS. Roger Max Tuscher, Bern, Switzerland. Revue medicale de la Suisse Romande, Vol. 72, pages 903-960. December, 1942.

There are many observations on the existence of focal infection in the tonsils. If the clinical anamesis and the object findings are properly studied in a particular case, it is possible by these simple means alone to diagnose at least 80 per cent of tonsillar focal infections. On the other hand, there is little to go by in the rest of the cases, especially if the patient is in a status of general allergy. In such cases especially, only the bacteriologic examination accompanied by skin tests for allergy will lead to correct diagnosis.

Throughout the years various diagnostic tests have been elaborated and recommended for recognizing tonsillar focal infection, such as the method of Schmidt-Viggo, lymphopenia after massage of healthy looking tonsils, leukocytosis with lymphopenia after massage of focally infected tonsils; the shift to the left of neutrophil leukocytes in the blood picture (Gording, Reidar, Hakon, Bjorn-Hansen), the tonsillar test of Worms and LeMee; yet, none of them is sufficient to establish with certainty the diagnosis of tonsillar focal infection. On the other hand, an intradermal test with the patient's own bacteria taken from the tonsillar crypts will help greatly in arriving at a correct diagnosis.

The sample taken from the bacterial flora of the tonsillar crypts is inoculated in bouillion of Rosenow. Antigen is prepared and one tenth of a cc is injected intradermally into the anterior face of the forearm. The skin reaction is observed after 24 hours and 36 hours. Preparation of the antigen or vaccine is made according to a slightly modified standard technic.—M.D.H., M.D.

"BLOOD FLOW IN EXTREMITIES AFFECTED BY ANTERIOR POLIOMYELITIS." P. I. Abramson, K. Flachs, J. Freiberg and I. A. Mirsky. Archives of Internal Medicine, Vol. LXXI, page 391. March, 1943.

This work tends to disprove the theory that after poliomyelitis the blood flow of an affected extremity is diminished, and it casts doubt on the rationale of therapeutic methods attempting to improve a supposedly weaker circulation. Twenty-seven patients, who had recovered from active poliomyelitis for varying lengths of time, were the subjects. The peripheral circulation of the affected limb as opposed to the unaffected limb was studied by determining: (1) blood flow by the venous-occlusion plethysmographic method, (2) the response to arterial occlusion, and (3) cutaneous temperature. The blood flow per unit of tissue was not significantly altered on the affected side, being about as often increased as it was diminished. Critical analysis of the other findings also showed no significant differences.

The experiments were performed in the winter time, the patients being brought indoors for the purpose. It was found, particularly in the case of skin temperatures, that before the subject was thoroughly warmed the circulation on the affected side was smaller. Therefore,

From the painting by George Frederick Watts, "HOPE"

AS EVER GROWING numbers of cases yield to liver therapy, pernicious anemia emerges from among the one-time "incurables." Today, men and women who must, can face this condition with justifiable optimism—for there is hope . . .

And so the laboring physician has two allies—a proven medicinal, and the fighting spirit of his patient.

When his choice of a liver product falls upon Purified Solution of Liver, Smith-Dorsey, he may count a third ally—the dependability of the maker. For Smith-Dorsey's product comes from laboratories capably staffed . . . equipped to the most modern specifications . . . geared to the production of a strictly standardized medicinal.

In that especially critical anemia case—as in all the others—you need a product of the caliber of

Purified Solution of

Liver

SMITH-DORSEY

Supplied in the following dosage forms:
1 cc. ampoules and 10 cc. and 30 cc. ampoule vials, each containing 10 U.S.P. Injectable Units per cc.

The
SMITH-DORSEY COMPANY LINCOLN, NEBRASKA

Manufacturers of Pharmaceuticals to the Medical Profession since 1908.

there was some evidence to corroborate the clinical impression of cooler skin surface and cutaneous varoconstriction in the paralyzed extremity. The authors would do well to pursue their work by the study of dynamic changes in the circulatoin caused by heat, cold, and emotion, and by further study of the control of the autonomic nervous system.

Rigidly controlled experimental work requires the most careful considered before being taken over by the clinic as useful fact. Interpretation is everything. In this case the authors have demonstrated beyond much doubt that under ordinary conditions there is not significant alteration in the circulation of paralyzed extremities in poliomyelitis. Clinically, it seems that methods designed to improve circulation in this disease, or otherwise to bring back useful function, should not be abandoned.—E.D.M., M.D.

"INTERNAL FIXATION IN INJURIES OF THE ANKLE." Harold G. Lee & Thomas B. Horan. Surg., Gyn. & Obst., Vol. LXXVI, page 593. May, 1943.

The authors have discussed the necessity for accurate reduction in fractures about the ankle, and have pointed out the frequency with which open reduction is necessary in order to accomplish an anatomical restoration. They have taken up separately; fracture of the lower end of the fibula ,trimalleolar fracture, fracture of the anterior tibial surface, fracture of the internal malleolus, Pott's fracture, separation of the tibia and fibula, and recurrent dislocation of the personal tendons. In each of these various conditions the authors have pointed out the important disalignments to be corrected and the necessity for internal fixation. In nearly every instance, they have accomplished this fixation by the use of a strategically placed bone screw. They feel that it is important that operative indications be recognized promptly, and that manipulative treatment be avoided. A classification of those injuries which require operative treatment is presented, and methods that have given excellent results are described.—E.D.M., M.D.

"THE RELATION OF TRAUMA DIABETES." Elliott P. Joslin. Boston, Mass. Annals of Surgery. April, 1943.

Diabetes ranks eighth as a cause of death in the United States, and approximately one individual in 165 of the total population has the disease. No age, sex, race or social status is immune. Its incidence is increasing and presumably will continue to grow until the average age at death of the population exceeds the decade 44-55 years, in which it is most apt to begin. This makes the date of onset of the disease in relation to the time of the trauma a crucial factor.

There are about 800,000 diabetics now living in the United States.

To prove that trauma is the cause of diabetes in any individual case, evidence must be at hand to show (a) that the disease did not exist before the trauma; (b) that the trauma was severe, injuring the pancreas; (c) that the symptoms and signs of the disease developed within a reasonable period following the trauma, the etiologic importance of the trauma waning with the prolongation of the interval; and (d) that the symptoms and signs of diabetes were not transitory but permanent.

Within a very few months after the use of Insulin in human beings, instances of infection at the site of injection if Insulin ceased to occur. Among 1,838 admissions to the George F. Baker Clinic during 1941 there were but eight who entered for abscesses following injection of Insulin. When one considers that only this small number of incidents occurred among many million injections in patients both inside and outside the hospital, it is evident that both the manufacturers and the patients use care. Needles broken in the skin during injection have never led to serious trouble in the author's experience, and such occurrences are even more rare than abscesses.

More serious are those in which an Insulin reaction has been mistaken for diabetic coma and, in consequence, a dose of Insulin has been given which resulted in death. Fortunately, such instances are few; in fact, but nine are known among 15,000 or more patients who have had Insulin administered. Four of these received additional Insulin while in shock, one undoubtedly, took a lethal dose of Insulin with design, and the circumstances regarding the remainder were somewhat obscure. None of the cases were observed in Boston, but five were in consultation.—H.J., M.D.

"DIABETES MELLITUS." Elliott P. Joslin, Boston, Mass. New England Journal of Medicine. May 20, 1943.

The year 1941 witnessed the first break in the upward curve of mortality from diabetes mellitus in the registration areas of the continental United States during the last seven years. The mortality rates from 1935 to 1941 are as follows:

1935	22.2 per cent per 100,000
1936	23.7 per cent per 100,000
1937	23.7 per cent per 100,000
1938	23.8 per cent per 100,000
1939	25.5 per cent per 100,000
1940	26.6 per cent per 100,000
1941	25.4 per cent per 100,000

The explanation undoubtedly lies first of all in the prolongation in the lives of diabetic patients, and secondly in the causes of death of these patients becoming more and more those of the population in general and not specifically related to diabetes. A death from diabetic coma is now a rarity. The possibility exists that statistics of diabetic mortality will not represent in the future so good a guide to the incidence of diabetes will be increasingly recorded as a secondary cause of death or, perhaps, be totally omitted from the death certificate. For the true mortality among diabetic patients and for the incidence of the disease in the country, it is probable that privately gathered statistics will be increasingly valuable. Perhaps afer the war the American Diabetes Association with its growing membership of physicians will attack the problem. That the number of living diabetic patients in the country is rapidly advancing there can be no question.

Diabetic Coma:

On March 30, 1943, in the Baker Clinic, there had been 83 consecutive cases of diabetic coma since August 21, 1940, with the carbondioxide content of the blood 20 volumes percent or less, without a fatality.

Adrenal Gland in Carbohydrate Metabolism:

Evidence pointing to the importance of the adrenal gland in carbohydrate metabolism has advanced considerably in the last few years. A review of recent articles is given.

Pregnancy:

The problem of pregnancy complicating diabetes is controversial in four primary respects. First, as regards fetal survival . . . does it deviate significantly from the normal? Secondly, as to the characteristics of the infants of diabetic mothers, is there an infant recognizable as one so produced? Thirdly, as to the clinical course of the mother, it is normal or abnormal, and does it affect the fetus? Fourthly, what is the need for special care of the infants and the mother?—H.J., M.D.

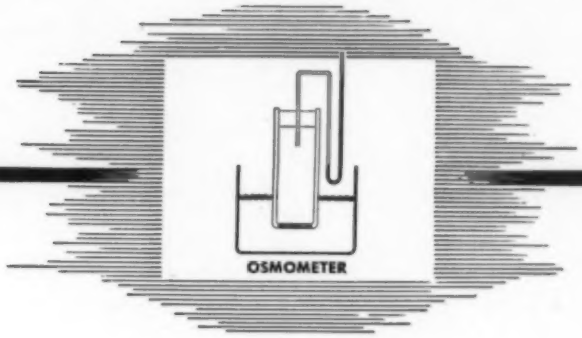
KEY TO ABSTRACTORS

E. D. M. ..... Earl D. McBride, MD.
M. D. H. ..... Marvin D. Henley, M.D.
H. J. ..... Hugh Jeter, M.D.

Real Knowledge

"The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it and converts itself into practical power. The rest hangs like dust about the brain or dries like rain drops off the stones."—Froude.

Removal and control of Dropsy



Passage of fluid from the blood into the tissues occurs in cardiac decompensation, nephrosis, and many cases of chronic nephritis. Disturbance of osmotic pressure relations prevents return of the "leaked" fluid to the systemic circulation, and dropsy results.

In these circumstances Salyrgan-Theophylline solution is customarily employed parenterally. This highly potent mercurial promotes the excretion of excess tissue fluid. In most cases urinary output is increased within a few hours and the edema disappears within a matter of days.

Salyrgan-Theophylline solution is preferably administered intravenously, but may also be given intramuscularly. It is generally well tolerated and injections can be repeated at appropriate intervals without loss of potency.

Supplied in ampuls of 1 cc., boxes of 5, 25 and 100; ampuls of 2 cc., boxes of 10, 25 and 100.

Salyrgan-Theophylline Solution

"Salyrgan," trademark Reg. U.S. Pat. Off. & Canada
Brand of MERSALYL with THEOPHYLLINE INJECTION

Winthrop

CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician

NEW YORK, N. Y. WINDSOR, ONT.

OFFICERS OF COUNTY SOCIETIES, 1943

★

COUNTY	PRESIDENT	SECRETARY	MEETING TIME
Alfalfa	H. E. Huston, Cherokee	L. T. Lancaster, Cherokee	Last Tues. each Second Month
Atoka-Coal	J. B. Clark, Coalgate	J. S. Fulton, Atoka	
Beckham	H. K. Speed, Sayre	E. S. Kilpatrick, Elk City	Second Tuesday
Blaine	Virginia Olson Curtin, Watonga	W. F. Griffin, Watonga	
Bryan	J. T. Colwick, Durant	W. K. Haynie, Durant	Second Tuesday
Caddo	F. L. Patterson, Carnegie	C. B. Sullivan, Carnegie	
Canadian	P. F. Herod, El Reno	A. L. Johnson, El Reno	Subject to call
Carter	Walter Hardy, Ardmore	H. A. Higgins, Ardmore	
Cherokee	P. H. Medearis, Tahlequah	*James K. Gray, Tahlequah	First Tuesday
Choctaw	C. H. Hale, Boswell	E. A. Johnson, Hugo	
Cleveland	J. A. Rieger, Norman	Curtis Berry, Norman	Thursday nights
Comanche	George S. Barber, Lawton	W. F. Lewis, Lawton	
Cotton	A. B. Holstead, Temple	Mollie F. Scism, Walters	Third Friday
Craig	F. M. Adams, Vinita	J. M. McMillan, Vinita	
Creek	H. R. Haas, Sapulpa	C. G. Oakes, Sapulpa	
Custer	F. R. Vieregg, Clinton	C. J. Alexander, Clinton	Third Thursday
Garfield	Paul B. Champlin, Enid	John R. Walker, Enid	Fourth Thursday
Garvin	T. F. Gross, Lindsay	John R. Callaway, Pauls Valley	Wednesday before Third Thursday
Grady	Walter J. Baze, Chickasha	Roy E. Emanuel, Chickasha	Third Thursday
Grant	I. V. Hardy, Medford	E. E. Lawson, Medford	
Greer	G. P. Cherry, Mangum	J. B. Hollis, Mangum	
Harmon	W. G. Husband, Hollis	L. E. Hollis, Hollis	First Wednesday
Haskell	William Carson, Keota	N. K. Williams, McCurtain	
Hughes	Wm. L. Taylor, Holdenville	Imogene Mayfield, Holdenville	First Friday
Jackson	E. S. Crow, Olustee	E. W. Mabry, Altus	Last Monday
Jefferson	F. M. Edwards, Ringling	L. L. Wade, Ryan	Second Monday
Kay	Philip C. Risser, Blackwell	J. Holland Howe, Ponca City	Third Thursday
Kingfisher	C. M. Hodgson, Kingfisher	H. Violet Sturgeon, Hennessey	
Kiowa	B. H. Watkins, Hobart	J. William Finch, Hobart	
LeFlore	Neeson Rolle, Poteau	Rush L. Wright, Poteau	
Lincoln	H. B. Jenkins, Tryon	Carl H. Bailey, Stroud	First Wednesday
Logan	William C. Miller, Guthrie	J. L. LeHew, Jr., Guthrie	Last Tuesday
Marshall	O. A. Cook, Madill	Philip G. Joseph, Madill	
Mayes	Ralph V. Smith, Pryor	Paul B. Cameron, Pryor	
McClain	B. W. Slover, Blanchard	R. L. Royster, Purcell	
McCurtain	A. W. Clarkson, Valliant	N. L. Barker, Broken Bow	Fourth Tuesday
McIntosh	James L. Wood, Eufaula	William A. Tolleson, Eufaula	First Thursday
Murray	P. V. Annadown, Sulphur	F. E. Sadler, Sulphur	Second Tuesday
Muskogee-Sequoyah-Wagoner	H. A. Scott, Muskogee	D. Evelyn Miller, Muskogee	First Monday
Noble	C. H. Cooke, Perry	J. W. Francis, Perry	
Okfuskee	L. J. Spickard, Okemah	M. L. Whitney, Okemah	Second Monday
Oklahoma	Walker Morledge, Oklahoma City	E. R. Musick, Oklahoma City	Fourth Tuesday
Okmulgee	A. R. Holmes, Henryetta	J. C. Matheney, Okmulgee	Second Monday
Osage	C. R. Weirich, Pawhuska	George K. Hemphill, Pawhuska	Second Monday
Ottawa	W. B. Sanger, Picher	Matt A. Connell, Picher	Third Thursday
Pawnee	E. T. Robinson, Cleveland	R. L. Browning, Pawnee	
Payne	L. A. Mitchell, Stillwater	C. W. Moore, Stillwater	Third Thursday
Pittsburg	John F. Park, McAlester	William H. Kaeiser, McAlester	Third Friday
Pontotoc	O. H. Miller, Ada	R. H. Mayes, Ada	First Wednesday
Pottawatomie	A. C. McFarling, Shawnee	Clinton Gallaher, Shawnee	First and Third Saturday
Pushmataha	John S. Lawson, Clayton	B. M. Huckabay, Antlers	
Rogers	C. W. Beson, Claremore	C. L. Caldwell, Chelsea	First Monday
Seminole	Max Van Sandt, Wewoka	Mack I. Shanholtz, Wewoka	Third Wednesday
Stephens	W. K. Walker, Marlow	Wallis S. Ivy, Duncan	
Texas	R. G. Obermiller, Texhoma	Morris Smith, Guymon	
Tillman	R. D. Robinson, Frederick	O. G. Bacon, Frederick	
Tulsa	James C. Peden, Tulsa	E. O. Johnson, Tulsa	Second and Fourth Monday
Washington-Nowata	J. G. Smith, Bartlesville	J. V. Athey, Bartlesville	Second Wednesday
Washita	A. S. Neal, Cordell	James F. McMurry, Sentinel	
Woods	C. A. Traverse, Alva	O. E. Templin, Alva	Last Tuesday Odd Months
Woodward	C. E. Williams, Woodward	C. W. Tedrowe, Woodward	Second Thursday

(Serving in Armed Forces)